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Catabase :
                                                                                                                                                                                                                                                                                                                                                                 Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                      No.
   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length:
                                                                                                                                                                                                                                                                                                                                                      Match
                                                                                                                                                                                                                                                                                                                                                                 Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
  Issued_Patents_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              212252 seqs, 22503292 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gapop 10.0 , Gapext 0.5
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242
1 SWFPVQGPADICQCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    January 10, 2002, 11:19:49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SWFPVQGPADICQCCNKGDC.....TPSHSRRQPHVMSQWSRSVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                              /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/2/iaa/backfiles1.pep:*
                                                                                                                                                                                                                                                                                                                                                      Length
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  DВ
           US-08-453-472-7
US-08-038-948-4
US-08-453-952-7
US-08-862-903-7
US-08-484-9388-49
US-08-484-9388-49
US-08-484-9388-49
US-08-484-9388-12
US-08-484-9388-12
US-08-484-9388-12
US-08-484-9388-12
US-08-484-9388-12
US-08-484-9388-12
US-08-484-9388-12
US-08-484-9388-12
US-08-484-9388-12
US-08-484-9388-18
US-08-484-9388-18
US-08-484-9388-18
US-08-484-1508-18
                                                                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Search time 12.48 Seconds (without alignments)
73.929 Million cell updates/sec
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                       Sequence
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18, Appl
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US-08-453-472-7
                                                                           INFORMATION FOR SEQ ID NO:
                                                                                     REGISTRATION NUMBER: 36,434
REFERENCE/DOCKET NUMBER: 20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
TELEFAX: (212) 751-6849
TELEX: 421792
                                                                                                                                                                                                            APPLICATION NUMBER: US 07/930,462 FILING DATE: 20-AUG-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/453,472
FILING DATE: 30-MAY-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/038,948
FILING DATE: 26-MAR-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY DISK
                                                                                                                                                            APPLICATION NUMBER: US 07/364,379
FILING DATE: 12-UN-1989
ATTORNEY,AGENT INFORMATION:
NAME: DOROTHY R. AUTH
                                                                                                                                                                                                                                                                                                                                        SOFTWARE: WORDPERFECT 5.1 CURRENT APPLICATION DATA:
MOLECULE TYPE:
                                                              SEQUENCE CHARACTERISTICS:
                                              LENGTH:
                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
              TOPOLOGY:
                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                 10154
                                    amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                          NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                             USA
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single

2026-4032 US3

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28
100	100	100	100	100	109	109	109	109	109	109	119	119	119	119	119	119	126
41.3	41.3	41.3	41.3	41.3	45.0	45.0	45.0	45.0	45.0	45.0	49.2	49.2	49.2	49.2	49.2	49.2	52.1
415	415	415	415	415	421	421	421	421	421	421	421	421	421	421	421	421	424
ω	N	N	N	N	w	w	N	N	N	N	w	w	N	N	N	N	N
US-08-458-731-8	US-08-480-150A-8 .	US-08-484-596A-8	US-08-484-158B-8	US-08-484-993B-8	US-08-149-223A-24	US-08-458-731-24	US-08-480-150A-24	US-08-484-596A-24	US-08-484-158B-24	US-08-484-993B-24	US-08-149-223A-6	US-08-458-731-6	US-08-480-150A-6	US-08-484-596A-6	US-08-484-158B-6	US-08-484-993B-6	US-08-862-903-8
Sequence 8, A	Sequence 8, A	Sequence 8, A	Sequence 8, A	Sequence 8, A	Sequence 24,	Sequence 24,	`	Sequence 24,	Sequence 24,	Sequence 24,	•	Sequence 6, A	Sequence 6, A	Sequence 6, A	Sequence 6, A	Sequence 6, A	Sequence 8, A
Appli	\ppli	\ppli	\ppli	Appli	App1	Appl	App1	Appl	Appl	App1	Appli	Appli	Appli	ippli	ppli	\ppli	Appli

# Sequence 7, Application US/08453472 PATENT NO. (\$626846) GENERAL INFORMATION: APPLICANT: DEAN, JURRIEN TITLE OF INVENTION: CORTRACEPTIVE TITLE OF INVENTION: BASED ON ALLG TITLE OF INVENTION: POLYPEPTIDES NUMBER OF SEQUENCES: 12 CORRESPONDENCE ADDRESS: ADDRESSEE: MORGAN & FINNEGAN T: 345 PARK AVENUE NEW YORK US/08453472 POLYPEPTIDES BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA CONTRACEPTIVE VACCINE

ALIGNMENTS

ORIGINAL SOURCE:

ORGANISM: human

INDIVIDUAL ISOLATE:

0;

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RESULT 2
US-08-038-948-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; IDENTIFICATION METHOD: ; OTHER INFORMATION: human ZP3 protein US-08-453-472-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                      TELEPHONE: (202) 861-3000
TELEFAX: (202) 822-9944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 4, Application US/08038948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION
                                                                                                                                     REGISTRATION NUMBER: 26,581
REFERENCE/DOCKET NUMBER: 991
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 861-3000
MOLECULE TYPE:
                                                                                                                                                                                                      APPLICATION NUMBER: US 07/364,379
FILING DATE: 12-JUN-1989
ATTORNEY/AGENT INFORMATION:
NAME: SCOTT, Watson T.
                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                     FILING DATE: 20-AUG-1
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: CUSHMAN, DARBY & CUSHMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: DEAN, JUITTLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
TOPOLOGY: li
                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 12-JUN
                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 07/930,462 FILING DATE: 20-AUG-1992
                                                                                                                                                                                                                                                                                                                                      FILING DATE: 26 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: D.C.
                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CELL TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: ZP3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANELLE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HAPLOTYPE:
TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEVELOPMENTAL STAGE:
                                          amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RY: U.S.
20005-3918
                                                    424 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1100 New York Avenue, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
           linear
                                                                                                                                                                                                                                                                                                                                                       26-MAR-1993
                           single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JURRIEN

N: CONTRACEPTIVE VACCINE BASED ON

N: ALLOIMMUNIZATION WITH ZONA PELLUCIDA POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97.1%;
95.1%;
                                                                                                                                                                                                                                                                                                                                                                    US/08/038,948
                                                                                                                                                                     99152/E-266-88/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 235; DB 1
Pred. No. 7e-21;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1; Length 424;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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RESULT 3
US-08-453-952-7
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/930,462
FILING DATE: 20-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/364,379
FILING DATE: 12-JUN-1989
ATTORNEY/AGENT INFORMATION:
NAME: DOROTHY R. AUTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 7, Application US/08453952
Patent No. 5672488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                          NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                     ORIGINAL SOURCE:
                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
TELEPAX: (212) 751-6849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08
FILING DATE: 26-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY DISK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: DEAN, JURRIEN
TITLE OF INVENTION: CONTI
TITLE OF INVENTION: BASEL
TITLE OF INVENTION: POLYE
CELL TYPE:
CELL LINE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                   TISSUE TYPE:
                                                              DEVELOPMENTAL STAGE:
                                                                                                                 ORGANISM:
                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: sir
TOPOLOGY: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         308 SWFPVEGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSAS 348
                                                    HAPLOTYPE:
                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER:
                                                                                    INDIVIDUAL ISOLATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/453,952 FILING DATE: 30-May-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: NEW YORK
STATE: NEW YORK
                                                                                                                                                                                                                      ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     345 PARK AVENUE
                                                                                                                   numan
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                                                                                                                                                                 unknown
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IBM PC COMPATIBLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MORGAN & FINNEGAN
                                                                                                                                                                                  single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97.1%;
95.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CONTRACEPTIVE VACCINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US 08/038,948
                                                                                                                                                                                                                                                                                                                                                       36,434
                                                                                                                                                                                                                                                      7 :
                                                                                                                                                                                                                                                                                                                                         2026-4032 US4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 235; DB 1
Pred. No. 7e-21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 1; Length 424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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FEATURE:

ORGANELLE:

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Q
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              D,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 7, Application Patent No. 5916768
GENERAL INFORMATION:
APPLICANT: DEAN, JUI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/862,903
FILING DATE: 30-May-1995
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PILING DATE: 26-MAR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/930,462
FILING DATE: 20-AUG-1992
PRIOR APPLICATION DATA:
07/364,379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY DISK
                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
TELEFAX: (212) 751-6849
                                                                                                                                         MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION: NAME: DOROTHY R. AUTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (411,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              308 SWFPVEGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSAS 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 0 FILING DATE: 12-JUN-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                        STRAIN:
                                                                                                                                                                                                                                       TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 36, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: MORGAN & FINNEGAN STREET: 345 PARK AVENUE
DEVELOPMENTAL STAGE:
                                                                                              ORGANISM: human
                                                                                                                                                                                                          TOPOLOGY: unknown
                                                                                                                                                                                                                                                                                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
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                                           INDIVIDUAL ISOLATE:
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                                                                                                                                                                                                                                           single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97.1%;
95.1%;
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BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POLYPEPTIDES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                us/08/862,903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36,434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2026-4032 US4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 235; DB 1
Pred. No. 7e-21;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
US-08-484-158B-61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 61, Application US/08484158B Patent No. 5976545
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                                                                                               TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 29-JAN-93
PRIOR APPLICATION DATA:
PRIOR APPLICATION UNMBER: 07/973,341
                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/149,223
FILING DATE: 09-NOV-93
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
                                                                                                                                                                 TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                 FILING DATE: 09-NOV-92
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
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                                     MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   308 SWFPVEGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSAS 348
                                                    TYPE: am:
TOPOLOGY:
                                                                                                                                               TELEPHONE: 312/4/4-000
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 07
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/O
FILING DATE: 07-JUNE-95
                                                                                                                                                                                                                   REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 07 FILING DATE: 09-NOV-92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Chicago
STATE: Illinois
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CELL TYPE:
                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                    DESCRIPTION:
                                                                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                amino acid
                                                                                   424 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hsu, Kuang T.
Podolski, Joseph S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    United States of America
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PatentIn Release #1.0,
                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Borun
/desc = "deduced amino acid sequence of human ZPC"
                                  protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97.1%;
95.1%;
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                                                                                                                                                                                                                   36,107
                                                                                                                                                                                                     32794
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Pred. No. 7e-21;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Version #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 2;
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JS-08-484-993B-49
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Best Local Similarity 95.1%;
                                                                        밁
                                                                                                                                                                                                    US-08-484-993B-49
; sequence 49, Application US/08484158B
                RESULT 7
US-08-484-158B-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 49,
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                                                                                                                               Matches
                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S. TITLE OF INVENTION: Materials and Methods for NUMBER OF SEQUENCES: 59
                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/97
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
ANAME. CLUMCH DAVIA W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 31 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 223 amino acid
                                                                                                                                                                                                                   TOPOLOGY: 11
                                                                         107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 08/0 FILING DATE: 29-JAN-1993
                                                                                                                                                                                                                                                                                                                                   TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                           NAME: Clough, David REGISTRATION NUMBER:
                                                                                                                              Local Similarity
les 37; Conserv
                                                                                                                                                                                                                                                                                                                  TELEFAX:
                                                                        39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9, Application US/08484993B 5837497
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6300 Sears Tower, 233 South Wacker Drive
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                                                                                                                                  Conservative
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                                                                                                                                                93.4%;
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                                                                                                                                                                                                                                                                                                                                                                           36,107
                                                                                                                                                                                                                                                                                            49:

    Mismatches

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Pred. No. 7e-21;
                                                                                                                                 Score 226; DB 2; Length 223; pred. No. 4.5e-20; 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                  31745
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
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                                                                                                                                           Gaps
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US-08-484-158B-49
                                                                                                                                                                                                                                                                                                            RESULT 8
US-08-484-596A-49
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 37; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION UMMER: US/08/4
FILING DATE: 07-JUNE-95
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/149,
FILING DATE: 09-NOV-93
PRIOR APPLICATION DATA:
APPLICATION UMBER: 08/012,
FILING DATE: 29-JAN-93
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION UMBER: 07/973,
APPLICATION
                                                                                                                                                                                                                         Patent No. 5981228
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                        Sequence 49, Application US/08484596A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: VICTORY: Chicago CITY: Chicago Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Rel CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
                                            APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods
NUMBER OF SEQUENCES: 59
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 25-3856
                                                                                                                                     APPLICANT: Harris Ph.D. APPLICANT: Hsu, Kuang TAPPLICANT: Podolski, JC
                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Clough, David W. REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 amino acid
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E: Marshall, O'Toole, Gerstein, Murray & Borun
6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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Pred. No. 4.5e-20;
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                                                                                                                            for Immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 223;
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COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk

COUNTRY: United States of America ZIP: 60606-6402

Illinois

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Do
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 49, Application US/08480150A Patent No. 5989550
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Best Local Similarity
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 31745
TELECOMMUNICATION INFORMATION:
APPLICATION NUMBER: US/08/480,150A FILLING DATE: 07-JUN-1995 CLASSIFICATION: 424 PRIOR APPLICATION DATA: APPLICATION UMBER: US 08/149,223
                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun STREET: 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 223 amino acids
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FILING DATE: 09-NOV-1992
ATTORNEY AGENT INFORMATION:
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PRIOR APPLICATION NIMBER: 08/149,223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Hsu, Kuang T.

APPLICANT: Podolski, Joseph S.

TITLE OF INVENTION: Materials and Methods for Immunocontraception
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                                                                                                                                                                                                                                                                                 STREET: Chicago
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 107 SWFPVEGPADICQCCSKGDCGTPSHSRRQPHVVSQWSRSAS 147
                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
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CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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                                                                                                                                                                                                                                         RY: United States of America 60606-6402
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                                                                                                                                                                                                                                                                                 Illinois
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90.2%;
                                                                                                                                 Release #1.0, Version #1.25
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RESULT 10
US-08-458-731-49
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 223 amino acids
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Matches 37; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/458,7
FILING DATE: 09-NOV-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
                                                                                                                                                                                                                                                                                                                                    ZIP: 60606-6402

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:
                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,341
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                   TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
NUMBER OF SEQUENCES: 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
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                 TELEFAX:
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                                                                                                            NAME: Clough, David W. REGISTRATION NUMBER: 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 6300 :
CITY: Chicago
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 09-NOV APPLICATION NUMBER:
                                                                                           REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       RY: United States of America 60606-6402
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6300 Sears Tower, 233 South Wacker Drive
                                   312/474-0448
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93.4%;
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                                                                                             31745
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US-08-458-731-49
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                                                                                                                                          US-08-149-223A-49
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 49, Application US/08149223A
                                                                 Query Match
                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 6060b-03-COMPUTER READABLE FORM:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: YSTEM: PC-100S/MS-DOS
C-1000 #1.0,
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MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 223 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Harris Ph.D., Jeffrey D.
APPLICANT: HSu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 09-NOV-1992 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
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                                                                                                                                                          MOLECULE TYPE:
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 107
                                                                                                                                                                                                                                           TELEFAX: 25-3856
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                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 08/012,990 FILING DATE: 29-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 09-NOV
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/149,223A FILING DATE: 09-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Chicago
STATE: Illinois
                                                                                                                                                                                                                                                                                                                                    NAME: Clough, David REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                        LENGTH:
                SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
 SWFPVEGPADICQCCSKGDCGTPSHSRRQPHVVSQWSRSAS 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION:
                                                                                                                                                                            amino acid
GY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        E: Marshall, O'Toole, Gerstein, Murray & 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            United States of America
                                                                                                                                                                                                        223 amino acids
                                                                                                                                                                                                                                                                          312/474-0448
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                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                  David W.
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Pred. No. 4.5e-20;
3; Mismatches 1
                                                                             Score 226; DB 3; Pred. No. 4.5e-20;
                                                                                                                                                                                                                                                                                                                        31745
                                                                Mismatches
                                                                1;
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                                                                                             Length 223;
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                                                                Indels
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US-08-484-993B-12
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                                                                                                                                                                                                         RESULT 13
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                                                                                                                                   Patent No. 5976545
GENERAL INFORMATION:
                                                                                                                                                     Sequence 12, Application US/08484158B Patent No. 5976545
                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                            Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 07/9;
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: 08/0:
FILING DATE: 29-JAN-1993
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NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
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                                                                                APPLICANT: Harris Ph.D., Jeffrey APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                 CORRESPONDENCE ADDRESS:
                                                 TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 31., TELEFAX: 25-3856
                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                              307 WYPVEGSADICRCCNKGSCGLPGRSRRLSHLERGWRKSVS 346
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CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                              Match 62.4%;
Local Similarity 60.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Clough, David W. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE:
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ADDRESSEE:
                                                                                                                                                                                                                                                                          2 WFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     426 amino acids
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                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PatentIn Release #1.0, Version
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SYSTEM: PC-DOS/MS-DOS
Marshall, O'Toole, Gerstein, Murray
                                                                                                                                                                                                                                                                                                                                                                                                                                  protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Floppy disk
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Materials and Methods for Immunocontraception
                                                                 Pharmaceutical Compositions
                                 Immunocontraception 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US/08/484,993B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31745
                                                                                                                                                                                                                                                                                                                              Score 151; DB 2; Length 426; Pred. No. 8.3e-11; S; Mismatches 11; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3equence 12, April
3equence 12, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent No. 5981228
GENERAL INFORMATION:
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APPLICANT:
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CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/149,223
APPLICATION NUMBER: 09-NOV-93
                                                                                                                                                                                                                                                                                                   NUMBER OF SEVEL....
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole,
Tower, 233
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
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PRIOR APPLICATION DATA:
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                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF
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TELEFAX: 25-3856
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STREET: 11inoj
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FILING DATE: 07-JUNE-95
                         SOFTWARE:
                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                               STATE:
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                                                                                                                                                                                  'RY: United States of America 60606-6402
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Similarity 60.0%;
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                                                                                                                                                                                                                                                                            Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                        INVENTION:
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: United States
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Hsu, Kuang T.
Podolski, Jose
                                                                                                                                                                                                                                               Illinois
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                         PatentIn Release #1.0,
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Materials and Methods for Immunocontraception
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Pred. No. 8.3e-11;
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GENERAL INFORMATION:
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: APPLICANT:
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,341
FILING DATE: 09-NOV-1992
ATTORNBY/AGENT_IMFORMATION:
                                                                                                        CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0:
FILING DATE: 09-NOV-1993
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                                                                                                                                                                                                 CURRENT APPLICATION DATA: APPLICATION NUMBER: US
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 08/1 FILING DATE: 11-NOV-1993
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                                                                                                                                                                                                                                    SOFTWARE:
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OPERATING SYSTEM: PC-DOS/MS-DOS
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amino acid
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3: /gg12_6/ptodata/2/iaa/6A_COMB.pep:*
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71 VACCINE ALLOIMMUNIZATION DES 1-DOS 138,948 138,948 138,946 138,472 153,472	ALIGNMENTS	862-903-8 484-993B-6 484-150B-6 480-150A-6 480-150A-6 484-993B-6 4149-233A-6 4149-233A-6 4149-233A-24 480-150A-24 480-150A-28 480-150A-28 480-150A-28 480-150A-8
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                                                                                                  TELEFAX: (202) 822-0944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 4:
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MOLECULE TYPE:
                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 07/930,462 FILING DATE: 20-AUG-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                         NAME: SCOTT, Watson T.
RECISTRATION NUMBER: 26,581
REFERENCE/DOCKET NUMBER: 99152/E-266-88/2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 1.
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                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TILE OF INVENTION: CONTRACEPTIVE VACCINE BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CLASSIFICATION:
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                                  STRANDEDNESS:
                                                                                                                                                       TELEPHONE:
                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 07/364,379 FILING DATE: 12-JUN-1989
                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/OFILING DATE: 26-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Washington
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IDENTIFICATION METHOD:
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TISSUE TYPE:
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SEQUENCE CHARACTERISTICS:
LENOTH: 424
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TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 07/930,462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING SYSTEM: PC-DOS/
SOFTWARE: WORDPERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 07/364,379
FILING DATE: 12-JUN-1989
ATTORNEY/AGENT INFORMATION:
NAME: DOROTHY R. AUTH
REGISTRATION NUMBER: 36,434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/038,948
FILING DATE: 26-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY DISK
                                                                                                                                                        MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 20
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 20-AUG-1992 PRIOR APPLICATION DATA:
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FEATURE:
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                             CELL TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: NEW YORK STATE: NEW YORK
                                                                                                                                                                                                                   TYPE: amino acid
                                                                                                                                                                                                                                                                                               TELEPHONE: (212) 758-4800
TELEFAX: (212) 751-6849
                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE: 20-AU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE: 30-May
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET:
              ORGANELLE
                                                              TISSUE TYPE:
                                                                           HAPLOTYPE:
                                                                                           DEVELOPMENTAL
                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                      STRANDEDNESS:
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                                                                                                            INDIVIDUAL ISOLATE:
                                                                                                                                        ORGANISM:
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MO. 5672488
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SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                      unknown
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                                                                                                                                                                       protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              UMBER: US/08/453,952
30-May-1995
                                                                                                                                                                                                      single
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95.1%;
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UE-08-862-903-7
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                                                                                                                                                         INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: DEAN, JURRIEN
TITLE OF INVENTION: CONTR
TITLE OF INVENTION: BASED
TITLE OF INVENTION: POLYP
                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 20
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 08/038,948 FILING DATE: 26-MAR-1993 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: WORDPERFECT CURRENT APPLICATION DATA:
                                                               MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: FILING DATE: 20-AUG-PRIOR APPLICATION DATA:
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LOCATION:
                                                                                                      TYPE: amino acid
STRANDEDNESS: sin
                                                                                                                                                                                        TELEPHONE: (212) 751-6849
                                                                                                                                                                                                                                                                     NAME: DOROTHY R. AUTH REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: FILING DATE: 30-May
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 07/364,379 FILING DATE: 12-JUN-1989
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                                                 ORGANISM: human
                                                                                                                                         LENGTH:
DEVELOPMENTAL STAGE
                 INDIVIDUAL ISOLATE:
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                                                                                             unknown
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                                                                                                                                                                                                                       (212) 758-4800
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30-May-1995
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                                                                                                           single
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95.1%;
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BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA
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Pred. No. 7e-21;
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GENERAL INFORMATION:
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APPLICATION NUMBER: 08/012,990
FILL G DATE: 29-JAN-93
PRIOR *PPLICATION DATA:
APPLICATION NUMBER: 07/973,341
APPLICATION NUMBER: 07/973,341
APPLICATION NUMBER: 09-NOV-92
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
                                                                                                                              INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 32
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPER-YING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 6
CORRETONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Harris Ph.D., APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Jos
                                       MOLECULE TYPE:
                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 424 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOP APPLICATION DATA:
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                                                                                                                                TELFPAX: TELFPAX: 25-3856
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                                                                                                                                                                                                                                       NAME: Clough, David W. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 08, FILING DATE: 09-NOV-93
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/
FILING DATE: 07-JUNE-95
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 SHEPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
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OTH: INFORMATION: human ZP3 protein
                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39; Conserv
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                                                                        amino acid
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                                                                                           424 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         United States of America
                                                                                                                                                                  312/474-0448
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                                                         linear
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protein
/desc =
/desc =
/deduced amino acid sequence of human ZPC"
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95.18;
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                                                                                                                                                                                                                                     36,107
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Pred. No. 7e-21;
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US-08-484-158B-61

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US-08-484-993B-49
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               US-08-484-158B-49
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                              RESULT
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
Sequence 49, Application US/08484158B
                                                                                                                                                Matches
                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION: NAME: Clough, David W.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Hsu, Kuang
APPLICANT: Podolski,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Harris Ph.D., Jeffrey
                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                TOPOLOGY: 11
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                                                                                                                                                                                                                                                                                                                                TELEFAX: 25-3856
                                                                                    107
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CITY: Chicago
STATE: Illinois
COUNTRY: United States of America
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                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Clough, David W. REGISTRATION NUMBER: 36,107 REFERENCE/DOCKET NUMBER: 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 08/0: FILING DATE: 29-JAN-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 07/973,341 FILING DATE: 09-NOV-1992
                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                LENGTH:
                                                                                                      1 SWFPVOGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                  SWFPVEGPADICQCCSKGDCGTPSHSRRQPHVVSQWSRSAS 147
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                                                                                                                                                l Similarity
37; Conserv
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                                                                                                                                                                                                                                                                             amino acid
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95.1%;
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Pred. No. 7e-21;
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                                                                                                                                                Score 226; DB 2;
Pred. No. 4.5e-20;
3; Mismatches 1
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South Wacker Drive
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Best Local
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                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                          Sequence 49, Application US/08484596A patent No. 5981228
                                                                                                                                                                                                                                                                                                                                       Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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APPLICATION NUMBER: 08
FILING DATE: 29-JAN-93
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APPLICATION NUMBER: 08/149,223
FILING DATE: 09-NOV-93
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
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                                              APPLICANT: Harris Ph.D., Jeffrey D.
APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
NUMBER OF SEQUENCES: 59
                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: protein
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
STREET: 6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                  107 SWEPVEGPADICQCCSKGDCGTPSHSRRQPHVVSQWSRSAS 147
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Local Similarity 90.2%;
les 37; Conservative
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Podolski, Joseph S.
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312/474-0448
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Pred. No. 4.5e-20;
3; Mismatches 1
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60606-6402

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GENERAL I
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Best Local Similarity
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
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APPLICANT:
                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                               APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
NUMBER OF SEQUENCES: 59
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 07/9:
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
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CRASSIFICATION DATA:
PRIOR APPLICATION DATA:
08/149,223
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PRIGR APPLICATION DATA: APPLICATION NUMBER:
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FILING DATE: 11-NOV-1993
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                  APPLICATION NUMBER: FILING DATE: 07-JUN
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                                                                                                                                                                                                                       STATE:
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                                 CLASSIFICATION:
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amino acid
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                                                                                                                                                                                                  United States of America
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                                                 JMBER: US/08/480,150A
07-JUN-1995
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90.2%;
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US 08/149,223
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Pred. No. 4.5e-20;
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US-08-458-731-49
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Best Local S
Matches 37
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                                       APPLICATION NUMBER: 08/012,99
FILHING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,3,4
FILL'IG DATE: 09-NOV-1992
ATTOR: Y/AGENT INFORMATION:
NAME: Clough, David W.
NAME: Clough, David W.
REGISTRATION NUMBER: 31,7
REFINENCE/DOCKET NUMBER: 317,
TELLCOMMUNICATION INFORMATION:
TELLYHONE: 312/474-6653
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Hsu, Kuang
APPLICANT: Podolski,
TITLE OF INVENTION: M
NUMBER OF SEQUENCES:
                                                                                                                                                                                                  CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                            SOF***WARE: PatentIn Release #1.0, Version #1.25 CURRE** APPLICATION DATA:
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            TELECTIONE: 312/474-0448
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                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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37; Conserv
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6001599
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amino acid
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Podolski,
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SEQ ID NO:
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49:
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Pred. No. 4.5e-20;
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                                                                                                                          , MOLECULE TYPE: .protein US-08-149-223A-49
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Best Local S
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В
                                                          Query Match
Best Local Similarity
Matches '37; Conser
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APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Jos
TITLE OF INVENTION: Match
NUMBER OF SEQUENCES: 59
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 223 amino acid
TYPE: amino acid
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                                                                                                                                                                                 TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 49:
SEQUENCE CHARACTERISTICS:
LENGTH: 223 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTÉR READABLE FORM:
MEDIÚM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,1
                                                                                                                                          TYPE: amino acids
TYPE: amino acid
TOPOLOGY: 1:--
                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 29-JAN-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
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nes 37; Conservative
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COUNTRY:
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                                                                                                                                                                                                                                 TELEPHONE: 312/474-0448
                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 08/0:
FILING DATE: 29-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
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6027727
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6300 Sears Tower, 233 South Wacker Drive
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Podolski, Jos
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                                                          Conservative
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Materials and Methods for Immunocontraception
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Pred. No. 4.5e-20;
                                                           Score 226; DB 3;
pred. No. 4.5e-20;
3; Mismatches 1
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RESULT 12
US-08-484-993B-12
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                                                                                                                                                                        RESULT 13
US-08-484-158B-12
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APPLICATION NUMBER: US/08/484,993B FILING DATE: 09-WV-1993
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION DATA: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
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Best Local Similarity
Matches 24; Conserv
                                                                                                                      Sequence 12, Application US/08484158B Patent No. 5976545 GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION
                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
                                                                      APPLICANT: Harris Ph.D., Jeffrey D.
APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
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CITY: Chicago
                                          TITLE OF INVENTION: Pharmaceutical Compositions TITLE OF INVENTION: Immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Clough, David W.
REGISTRATION NUMBER: 36,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
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GY: linear
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Podolski, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                 426 amino acids
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                                                                                                                                                                                                                                                                                                       Conservative
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)0 Sears Tower, 233
Marshall, O'Toole, Gerstein, Murray &
                                                                                                                                                                                                                                                                                                                                                                                                protein
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                                                                                                                                                                                                                                                                                                                        62.4%;
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pred. No. 8.3e-11;
5; Mismatches 11
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RESULT 14
US-08-484-596A-12
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                                                                                                                                                                                                                                                                                                               Patent No.
                                                                                                                                                                                                                                                                                                                                 sequence 12,
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INFORMATION FOR SEQ ID NO:
            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
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PRIOR APPLICATION NIMBER: 08/149,223
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CURRENT APPLICATION DATA:
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APPLICANT: Podolsk
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 426 amino acid
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TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
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FILING DATE: 29-JAN-93
PRIOR APPLICATION DATA:
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PRIOR APPLICATION NUMBER: 08/012,990
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MEDIUM TYPE: Floppy disk
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CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/
FILING DATE: 07-JUNE-95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Clough, David W REGISTRATION NUMBER: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 08, FILING DATE: 09-NOV-93
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                                                                                                                 COUNTRY:
                                                                                                                                    STATE:
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                                                                                                 60606-6402
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SYSTEM: PC-DOS/MS-DOS
               PatentIn Release #1.0, Version #1.25
                                                                                                                                                             Marshall, O'Toole,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein
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    i, Joseph S.
    Materials and Methods for Immunocontraception

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                                                                                                                                                                 Gerstein, Murray & South Wacker Drive
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Hsu, Kuang
APPLICANT: Podolski,
TITLE OF INVENTION: I
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,150A
                           APPLICATION NUMBER: 07/973,341 FILLING DATE: 09-NOV-1992 ATTORNEY/AGENT INFORMATION:
                                                              FILING DATE: 29-JAN-
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                               CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                  COMPUSER READABLE FORM:
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RECISTRATION NUMBER: 35,107
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                                                                                               APPLICATION NUMBER: 08/0: FILING DATE: 29-JAN-1993
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Search completed: January 10, 2002, 11:20:40 Job time: 51 sec
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TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEC ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 426 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-480-150A-12
                                                                                                                                                     Query Match
62.4%; Score 151; DB 2; Length 426;
Best Local Similarity 60.0%; Pred. No. 8.3e-11;
Matches 24; Conservative 5; Mismatches 11; Indels 0; Gaps
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Page 8

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Title:
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PIR; A36000; A36000.

MIM; 182889;
InterPro; IPR001507; zona_pellucida.
Pfam; PF00100; zona_pellucida; 1.
PRINTS; PR00023; ZPELLUCIDA.
SMART; SM00241; ZP; 1.
PROSITE; PS00682; ZP_DOMAIN; 1.
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Q06633;
Q1-QCT-1994 (Rel. 30, Created)
Q1-QCT-1994 (Rel. 30, Last sequence update)
Q1-QCT-1996 (Rel. 39, Last annotation update)
Q1-QCD-QCD (Rel. 39, Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 3B PRECURSOR (ZONA PELLUCIDA GLYCOPROTEIN ZP3B) (SPERM RECEPTOR) (ZP3).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in the Caucasian and Japanese populations.";

Genomics 14:1064-1070(1992).

Genomics 14:1064-1070(1992).

-i- FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE FOR SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO THE SPECIES-SPECIFICITY OF THE INSEMINATION.

SPECIES-SPECIFICITY OF THE INSEMINATION.

-i- SUBUNIT: ZP3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           van Duin M., Polman J.E., Verkoelen C.C., Bunschoten H., Meyerink J.H., Ollive W., Aitken R.J.; "Cloning and characterization of the human sperm receptor ligand ZP3: evidence for a second polymorphic allele with a different frequency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Ovary;
MEDLINE=93122771; PubMed=1478648;
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                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                            modified and this statement is not removed.
                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
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                        PRINTS; PR00023; ZP SMART; SM00241; ZP;
                                                                                                                                                                    EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                        SUBCELLULAR LOCATION: EXTRACELLULAR MATRIX.
PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES SIMILARITY: CONTAINS 1 2P DOMAIN.
                                                                                                                     195002;
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39; Conser
                                                                                                                                           X56777; CAA40095.1; -. A18567; CAA01398.1; -.
       PS00682;
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                                                                                              IPR001507; zona_pellucida.
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matrix;
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                                                                        zona_pellucida;
                                                    ZPELLUCIDA.
       ZP_DOMAIN; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           47028
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Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97.1%;
95.1%;
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Multigene
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 235;
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-LINKED (GLCNAC...) (PO

N-LINKED (GLCNAC..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL. CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZONA PELLUCIDA SPERM-BINDI EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Sperm; Receptor; Transmembrane;
family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3e-21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DВ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1;
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                                                                                                                                                                                                                                                                           Usage by
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL).
                                                                                                                                                                                                                                                                                and
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ID ZASA_MACRA
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AC P5378
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Best Local
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Extracellular |
SIGNAL
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CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=96249321; PubMed=8848588;
MEDLINE=96249321; PubMed=8848588;
Kolluri S.K., Kaul R., Banerjee K., Gupta S.K.;
Kolluri S.K., Kaul R., Banerjee K., Gupta Bonnet monkey (Macaca radional Partial Collage And Partial Partial Collage And Partial P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZP3A_MACRA
P53785;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-1996 (Rel. 34, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 3A PRECURSOR (ZONA PELLUCIDA GLYCOPROTEIN ZP3A) (ZONA PELLUCIDA PROTEIN C) (SPERM RECEPTOR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Macaca radiata (Bonnet monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZP3A OR ZP3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cercopithecinae; Macaca.
NCBI_TaxID=9548;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     308
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                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Ovary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                            SMART; SMUUZ4: 4-, ...

PROSITE; PSO0682; ZP_DOMAIN; 1.

Glycoprotein; Signal; Sulfation; Sperm;
Extracellular matrix; Multigene family.

POTENTIAL.

22
                                                                                                                                                                                                         EMBL; x82639; CAA57961.1; ...
Interpro; IPR001507; zona_pellucida.
Pfam; PF00100; zona_pellucida; 1.
PRINTS; PR00023; ZPELLUCIDA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -i- PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES -i- SIMILARITY: CONTAINS 1 ZP DOMAIN.
                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                               use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the European Bioinformatics Institute. There are no resture by non-profit institutions as long as its content
                                                                                                                                                                                      SMART; SM00241; ZP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Signal; Sulfation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41424
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92.7%;
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M; AB78DB5311BE7B4A CRC64;
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Pred. No. 1.4e-20;
1; Mismatches 2
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                                         ZONA PELLUCIDA
            EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  family
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                                                                                                                                   Receptor;
               A SPERM-BINDING (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  monkey (Macaca radiata)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (ZONA PELLUCIDA
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                                                                                                                                         Transmembrane;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      and
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Best Local S
Matches 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Thillai-Koothan P., van Duin M., Aitken R.J.;
"Cloning, sequencing and oocyte-specific expression of the marmoset sperm receptor protein, ZP3.";
Zygote 1:93-101(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P53786;
01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 3A PRECURSOR (ZONA PELLUCIDA SPERM-BINDING PROTEIN 3A PRECURSOR (ZONA PELLUCIDA SPERM-BINDING PROTEIN C) (SPERM RECEPTOR) (ZP3).
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SEQUENCE
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DOMAIN
                                                                                                                                                    PROSITE; PS00682; ZP_DOMAIN; 1. Glycoprotein; Signal; Sulfation;
                                                                                                                                                                                                                            PRINTS;
                                                                                                                                                                                                                                                 InterPro; IPR001507; zona_pellucida
Pfam; PF00100; zona_pellucida; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Callithrix sp. (Marmoset).
Eukaryota; Metazoa; Chorda
                           DOMAIN
                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                               EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SIMILARITY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZP3A_CALSQ
                                              TRANSMEM
                                                                       DOMAIN
                                                                                                                                         Extracellular matrix;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE T SPECIES-SPECIFICITY OF THE INSEMINATION.
SUBUNIT: ZP3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MATRIX.
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                                                                                                                                                                                                                                                                                             S71825; AAB31866.1; -
                                                                                                                                                                                                     SM00241; ZP; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 90.:
37; Conservative
                                                                                                                                                                                                                            PR00023; ZPELLUCIDA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES LARITY: CONTAINS 1 ZP DOMAIN.
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424 AA;
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                                                                                                                                    Multigene family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MW;
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ZONA PELLUCIDA:
EXTRACELLULAR (I
POTENTIAL.
CYTOPLASMIC (POTENT)
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Pred. No. 3.6e-20;
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                                                                                                                 POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
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                                                                                                                                                           Sperm; Receptor; Transmembrane;
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                         (POTENTIAL)
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                                                                                          SPERM-BINDING
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(POTENTIAL).
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RESULT 5
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Best Local
                                              EMBL; U05780; AAA74387.1; -.
EMBL; D45070; BAA08098.1; -.
InterPro; IPRO01507; zona_pellucida.
Pfam; PF00100; zona_pellucida; 1.
PRINTS; PR00023; ZPELLUCIDA.
SMART; SM00241; ZP; 1.
PROSITE; PS00682; ZP_DOMAIN; 1.
                                                                                                                                                                                                                                                                                                                                                                      Okazaki Y., Sugimoto M.;

Okazaki Y., Sugimoto M.;

Okazaki Y., Sugimoto M.;

Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.

Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.

FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE FOR SPERM-ADHESTON TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO THE SPECIFICITY OF THE INSEMINATION (BY SIMILARITY).

SPECIES-SPECIFICITY OF THE INSEMINATION (BY SIMILARITY).

SPECIES-SPECIFICITY OF THE JONA PELLUCIDA, IN SUBUNIT: ZP3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMBES CROSS-LINKED BY ZP1.
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SEQUENCE
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01-FEB-1996 (Rel. 33, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
20NA PELLUCIDA SPERM-BINDING PROTEIN 3 PRECURSOR (ZONA PELLUCIDA GLYCOPROTEIN ZP3) (SPERM RECEPTOR) (ZONA PELLUCIDA PROTEIN C).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZP3_CANFA
P48831;
Glycoprotein; Signal; Sulfation; Sperm; Receptor; Extracellular matrix; Multigene family. SIGNAL 1 22 POTENTIAL.
                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Canis familiaris (Dog).
Canis familiaris (Dog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Eukaryota; Metazoa; Chordata; Cranidae; Canis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Cloning and characterization of zona pellucida a variety of mammalian species: the ZPA, ZPB and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=Ovary;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sacco A.G.;
"Cloning and characterization of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZP3 OR ZPC
                                                                                                                                                                                                                                                                                                          -! - SIMILARITY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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Harris J.D., Hibler
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er D.W., Fontenc
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Pred. No. 4.3e
4; Mismatches
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nd ZPC gene
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Best Local
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01-FEB-1996 (Rel. 3), Last sequence update)
30-MAY-2000 (Rel. 3), Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 3 PRECURSOR (ZONA PELLUCIDA SPERM-BINDING PROTEIN (ZONA PELLUCIDA PROTEIN C).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZP3_MESAU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kinloch R.A., Ruiz-Seller B., Wassarman P.M.;
"Genomic organization and polypeptide primary structure pellucida glycoprotein hZP3, the harder sperm receptor. Dev. Biol. 142:414-421(1990).

-i- FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mesocricetus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=91078540; PubMed=2257975;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mesocricetus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             307
                                                                                                                                                                                              use by non-profit institutions as long modified and this statement is not removed entitles requires a license agreement (See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-Ovary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10036;
                                                                                                                                                                           or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
  Glycoprotein;
                                            PRINTS; PRO0023; ZP; SMART; SM00241; ZP;
                       PROSITE; PS00682; ZP_DOMAIN;
                                                                                          Pfam; PF00100;
                                                                                                             InterPro; IPR001507; zona_pellucida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 WFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBI SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE SPECIES-SPECIFICITY OF THE INSEMINATION.
SUBUNIT: ZD3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, I WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY
                                                                                                                                                                                                                                                                                                                                                     TISSUE SPECIFICITY: OOCYTES.
DEVELOPMENTAL STAGE: GROWING OOCYTES.
PTM: SULFATED GLYCOPROTEIN WITH O-LINKED
SIMILARITY: CONTAINS 1 ZP DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBCELLULAR LOCATION: TYPE I MEMBRANE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24;
                                                                                                                                    M63629; AAA37079.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         auratus (Golden hamster).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĀĀ;
    Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                        zona_pellucida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          426
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                                                                     ZPELLUCIDA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           62.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chordata;
      Sulfation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W-LINKED (GLCNAC. ..) (POTENTIAL).
N-LINKED (GLCNAC. ..) (POTENTIAL).
N-LINKED (GLCNAC. ..) (POTENTIAL).
L -> P (IN REF. 2).
W -> S (IN REF. 2).
K -> R / TW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 151; DB Pred. No. 3.6e 5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZONA PELLUCIDA SPERM-BINDING PROTEIN 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BE5825A949DCA172 CRC64;
         Sperm;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         422
                                                                                                                                                                                                          (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1;
.6e-11
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         Receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41
                                                                                                                                                                                                                                                                                                                                                                                      OLIGOSACCHARIDES
                                                                                                                                                                                                                                 Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CROSS-LINKED BY
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EXTRACELLULAR
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RESULT 7
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Best Local
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CARBOHYD
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Extracellular SIGNAL
                                                                                                                                                                                                                                                                              Okazaki Y., Sugimoto M.;

Okazaki Y., Sugimoto M.;

Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.

Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.

Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.

FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE FOR THE SPECIES-SPECIES OF THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO THI SPECIES-SPECIFICITY OF THE INSEMINATION (BY SIMILARITY).

SPECIES-SPECIES OF THE ZONA PELLUCIDA, IN SPECIES OF THE ZONA PELLUCIDA, IN SP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 3 PRECURSOR (ZONA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P48832;
01-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Cloning and characterization of zona pellucida genes and a variety of mammalian species: the ZPA, ZPB and ZPC gene DNA Seq. 4:361-393(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GLYCOPROTEIN ZP3) (SPERM RECEPTOR) (ZONA PELLUCIDA PROTEIN C).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-95143578; PubMed-7841460;
Harris J.D., Hibler D.W., Fonteno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia_Eutheria; Carnivora; Fissipedia; Felidae;
                                                      the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and for entities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Felis silvestris catus (Cat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZP3 OR ZPC.
                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entropean Bioinformatics Institute. There are no restrained the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sacco A.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Ovary;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9685;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Ovary;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 307
EMBL; U05778;
EMBL; D45068;
                                                                                                                                                                                                               -!- SIMILARITY: CONTAINS 1 ZP DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY)
                                                                                                                                                                                                                                                      PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES
                                                                                                                                                                                                                                                                            MATRIX
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23; Conserv
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                        AAA74390.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fontenot G.K., Hsu K.T., Yurewicz E.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Score 143; DB; Pred. No. 3.2e 7; Mismatches
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PRO-RICH.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZONA PELLUCIDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |-LINKED (GLCNAC. . .) (P
|-LINKED (GLCNAC. . .) (P
|-LINKED (GLCNAC. . .) (P
|-D0F95BE7FF8E7E01 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          424
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            347
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 422;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Euteleostomi;
Felis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
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                                                                                                                                                restrictions
                                                                                                                                                                        EMBL
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                                                                                                                                                                        outstation
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BAA08096.1;

IPR001507; zona\_pellucida

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RESULT 8
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Best Local :
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CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE-88242926; PubMed=3378665;
Ringuette M.J., Chamberlin M.E., Ba
"Molecular analysis of cDNA coding
of the mouse zona pellucida.";
                                                                                                                                                                                                                                                                                                                                                                                                                                 ZP3_MOUSE
P10761;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                    01-JUL-1989 (Rel. 11, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 3 PRECURSOR (ZONA PELLUCIDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00682; ZP_DOMAIN; FALSE_NEG Glycoprotein; Signal; Sulfation; Sperm, Extracellular matrix; Multigene family
                                                                         SEQUENCE FROM N.A. MEDLINE-88320451;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                             "Primary structure of
by genomic cloning.";
                                                                                                                                                   STRAIN=CD-1; TISSUE=Liver; MEDLINE=89240048; PubMed=2541416;
                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                              Submitted (NOV-1996)
                                                                                                                                                                                                          Dean
                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                 ZP3 OR ZP-3.
                                                                                                                                                                                                                                                                                                                                                                           GLYCOPROTEIN ZP3) (SPERM RECEPTOR) (ZONA PELLUCIDA PROTEIN C).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00100; zona_pellucida;
SEQUENCE OF 49-63; 197-204; 219-233 AND 261-275
                    Proc. Natl.
                                                   Wassarman P.M.,
                                                              Kinloch R.A., Roller R.J.,
                                                                                                          Nucleic Acids Res
                                                                                                                      "Nucleotide sequence of the gene encoding
                                                                                                                                                                                                                    REVISION TO 387.
                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                     Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 WFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                         Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WFPVEGPADICNCCNKGSCGLQGRSWRLSHLDRPWHKMAS 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SM00241;
                                                                                                       the mouse sperm receptor."; Acids Res. 17:2861-2863(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PR00023; ZPELLUCIDA.
                                                                                                                                                                                                                                          127:287-295(1988).
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23
384
405
43
52
123
145
72
                     Acad.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZP;
                     Sci.
                                                                         PubMed=2842770;
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404
424
305
52
123
145
72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    56.2%;
55.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  46853
                                                                                                                                                                                               ţ
                                          the mouse
                    U.S.A. 85:6409-6413(1988).
                                                                                                                                                                                              the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MW;
                                                             Fimiani C.M., Wassarman D.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
G-> W (IN REF. 2).
D-> Y (IN REF. 2).
CFC62F35F9AAFCOD CI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 136; DB
Pred. No. 2.2e
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZONA PELLUCIDA SPERM-BINDING EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                         sperm
                                                                                                                                                                                                                                                              Baur A.W.,
ng for ZP3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sperm; Receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                            424
                                         receptor polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 1;
.2e-09
                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                               zona
                                                                                                                                                                                                                                                             Sobieski D.A., I a sperm binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15;
                                                                                                                              pellucida glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ) (POTENTIAL).
) (POTENTIAL).
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                                                                                                                                                                                                                                                            Dean J.;
g protein
                                          determined
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RESULT ZP3_PIG ID ZP3 AC P42 O1 O1-DT O1-DT 20-DT 20-DT ZON DE ZON ZP3
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                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 22
                          P42098;
01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
20NA PELLUCIDA SPERM-BINDING PROTEIN 3-BETA PRECURSOR (ZONA PELLUCIDA ZONA PELLUCIDA PECCURSOR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PIR; S04189; S04189.

PIR; A30334; A30334.

PIR; A31232; A31232.

MGD; MGI:99215; Zp3.

InterPro; IPR001507; zona_pellucida.

Pfam; PF00100; zona_pellucida; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -i- DEVELOPMENTAL STAGE: EXPRESSED DURING THE 2-WEEK GROWTH PI
OOGENESIS, PRIOR TO OVULATION.
-i- PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Identification of a region of mouse zona pellucida glycoprotein mzp3 that possesses sperm receptor activity.";
Dev. Biol. 154:309-317(1992).
Pev. Biol. 154:309-317(1992).
Pev. Biol. Total Functions As A Sperm-Receptor. IT IS RESPONSIBLE FOR SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO THE SPECIES-SPECIFICTY OF THE INSENINATION.
PERCENTION FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP1.
PERCENTION FORMS TO THE INSENIOR OF THE STRACELLULAR CONTRIBUTE IN MEMBRANE PROTEIN. EXTRACELLULAR
GLYCOPROTEIN ZP3B OR ZPC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; M20026; AAB18629.1; -. EMBL; X14376; CAA32550.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR00023; ZP
SMART; SM00241; ZP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the European Bioinformatics Institute. Thuse by non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                              ZP3_PIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Extracellular matrix.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Glycoprotein; Signal; Sulfation; Sperm; Receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rosiere T.K., Wassarman P.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=93050795; PubMed=1330788;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=CD-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00682; ZP_DOMAIN; 1.
                                                                                                                                                                                                                                                                                                          309
                                                                                                                                                                                                                                                                                                                               1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE SPECIFICITY: OOCYTES
                                                                                                                                                                                                                                                                                                          SWLPVEGDADICDCCSHGNCSNSSSSQFQIHGPRQWSKLVS
                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         409
                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                       ZP3-BETA) (SPERM RECEPTOR) (ZONA PELLUCIDA PROTEIN
                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZPELLUCIDA.
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424
408
408
424
424
308
146
307
307
3304
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53.7%;
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N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
                                                                                                                                                                                                                                                                                                                                                                                                         5.
                                                                                                                                                                                                                                                                                                                                                                                                         Score 126; DB 1;
Pred. No. 3.6e-08;
5; Mismatches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZONA PELLUCIDA SPERM-BINDING PROTEIN EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL
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                                                                                                                                                                                                                                                                                                                                                          41
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 424;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
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                                                                                      Query Match
                                                           Matches
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Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                           Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OKAZAKI Y., SUGIMOTO M.;
Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.
Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.

1. FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE FOR FUNCTION: FUNCTION AS A SPERM-RECEPTOR. IT IS RESPONSIBLE TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO THE SPERM-ADHESION TO FHE INSEMINATION (BY SIMILARITY).

SPECIES-SPECIFICITY OF THE INSEMINATION (BY SIMILARITY).

1. SUBURIT: ZP3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP1.

WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP1.

SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN. EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Yurewicz E.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (JUL-1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; L22169; AAA31145.1; -. EMBL; D45065; BAA08093.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlycoSuiteDB; P42098; -. InterPro; IPROJ1507; zona_pellucida. InterPro; IPROJ100; zona_pellucida; 1. Pfam; PF00100; zona_pelLUCIDA. PRINTS; PRO0023; ZPELLUCIDA.
                                                                                                                                 CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                   Glycoprotein; Signal; Sulfation; Sperm; Receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00682; ZP_DOMAIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; D45065;
                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                         Extracellular matrix
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                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                               TRANSMEM
                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                              CONFLICT
                                                                                                                                                                                                                            CARBOHYD
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                                                                                                                                                                                                                                                                                                                   DOMAIN
 308
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE SPECIFICITY: OOCYTES
                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (BY SIMILARITY)
                               N
               WFPVQGPADICQCCNKGDCGTPSHSRR 28
WSPVEGPAVICRCCHKGQCGTPSLSRK 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SM00241; ZP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES
                                                             Similarity 70.
19; Conservative
                                                                                                                                                                                                                                                                                                                                 22
382
403
                                                                                                                                                                                101
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421
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402
421
306
124
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271
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107
164
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                                                                              49.28;
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he EMBL/GenBank/DDBJ da
                                                                                                                                                        N-LINKED (GLUNAC...)

/FTId=CAR_000151.

N-LINKED (GLUNAC...) (POTENTIAL).

N-LINKED (GLUNAC...) (POTENTIAL).

N-LINKED (GLUNAC...).

/FTId=CAR_000153.

/FTId=CAR_000153.

MISSING (IN REF. 2).

D -> V (IN REF. 2).

D -> GV (IN REF. 2).
                                                                                                                                         MW;
                                                                                                                                                       VF -> GV
P -> A (I
                                                                                                                                                                                                                                                                                                                                                                                               ZONA PELLUCIDA SPERM-BINDING PROTEIN
                                                                                                                                                                                                                                                                                                                                      CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                    EXTRACELLULAR (POTENTIAL).
                                                                              Score 119; DB 1;
Pred. No. 2.4e-07;
                                                                                                                                                                                                                                                                                                                                                    POTENTIAL
                                                                                                                                       F -> GV (IN REF. 2).
-> A (IN REF. 2).
DC97D760E985213A CRC64;
                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                         (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     databases
                                                                                                Length 421;
                                                                      0;
                                                                        Gaps
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ZP3_BOVIN
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                                         Qy
멍
                                                                                            Query Match
Best Local S
Matches 17
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P48830;
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01-FEB-1996 (Rel. 33, Last sequence update)
01-FEB-1996 (Rel. 39, Last annotation update)
30-MAY-2000 (Rel. 39, Last annotation update)
20-MAY-2000 (Rel. 39, Last annotation update)
20-MAY-2000 (Rel. 39, Last annotation update)
20-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 33, Created)
30-MAY-2000 (Rel. 33, Created)
30-MAY-2000 (Rel. 33, Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZP3 OR ZPC.
Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLYCOPROTEIN ZP3B) (SPERM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its the European Bioinformatics Institute. There are no entitions on its by non-profit institutions as long as its content is in no way use by non-profit institutions as long as its content is in no way entities and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a variety of mammalian species: the ZPA, ZPB and ZPC gene familles DNA Seq. 4:361-393(1994).

-I- FUNCTION: FUNCTIONS AS A SPERM-RECEPTOR. IT IS RESPONSIBLE FOR THE FUNCTION FOR THE PROPERTY OF THE PROPERTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=95143578; PubMed=7841460;
Harris J.D., Hibler D.W., Fontenot G.K., Hsu K.T., Yurewicz E.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Cloning and characterization of zona pellucida genes and cDNAs from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY: CONTAINS 1 ZP DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -
                                                                                                                                                                                                                                               CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Glycoprotein; Signal; Sulfation; Sperm; Extracellular matrix; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00682; ZP_DOMAIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR001507; zona_pellucida. pfam; PF00100; zona_pellucida; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; U05775; AAA74385.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Extracellular matrix;
                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                               TRANSMEM
                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                 DOMAIN
  308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SPERM-ADHESION TO THE ZONA PELLUCIDA, AND MAY CONTRIBUTE TO THE SPECIES-SPECIFICITY OF THE INSEMINATION (BY SIMILARITY).
SUBGURIT: ZP3 FORMS WITH ZP1 AND ZP2 THE ZONA PELLUCIDA, IN WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP1 SUBGELLULAR LOCATION: TYPE I MEMBRANE PROTEIN. EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES (BY
                                                N
  WFPVQGPADICQCCNKGDCGTPSHSRRQPH 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SM00241;
                                                                                                    1 Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PR00023;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (Bovine).
                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZPELLUCIDA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
                                                                                                                                                                                                                                                    421
421
402
402
421
306
124
146
179
271
                                                                                                                                                                                                                                  46545 MW;
                                                                                                                              45.0%;
56.7%;
                                                                                                      ; score 109; DB
; pred. No. 3.9e
3; Mismatches
                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                               CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                            POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                ZONA PELLUCIDA
EXTRACELLULAR (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sperm; Receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421 AA
                                                                                                                                     DB 1;
.9e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SPERM-BINDING PROTEIN 3.
                                                                                                                   10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZPC gene families.";
                                                                                                                                                                                                                                          CRC64;
                                                                                                                                                            Length 421;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CONTRIBUTE TO THE
                                                                                                                                                                                                                                                                                          (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                           (POTENTIAL)
                                                                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a collaboration
                                                                                                                        0;
                                                                                                                        Gaps
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RESULT 11
Z?3_RABIT
                                                                                                                                  RESULT
DSG3_HU
Guery Match
Best Local
                                                                                                                                                                                                                                   Matches
                                    P32976;
P32976;
01-0CT-1993 (Rel. 27, Created)
01-0CT-1993 (Rel. 27, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
DESMOGLEIN 3 PRECURSOR (130 KDA PEMPHIGUS VULGARIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZP3_RABIT STAN
P48833;
01-FEB-1996 (Rel. 3
01-FEB-1996 (Rel. 3
01-FEB-1996 (Rel. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-Ovary;
MEDLINE-95143578; PubMed-7841460;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                            DOMAIN
DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            *Cloning and characterization of zona pellucida genes and a variety of mammalian species: the ZPA, ZPB and ZPC gene DNA Seq. 4:361-393(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eut
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus
NCBI_TaxID=9986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (FRAGMENT).
ZP3 OR ZPC.
                                                                                                                     _HUMAN
DSG3_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00682; ZP_DOMAIN; 1. Glycoprotein; Signal; Sulfation; Sperm; Extracellular matrix; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                Sacco A.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GLYCOPROTEIN ZP3) (SPERM RECEPTOR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
01-FEB-1996 (Rel. 33, Last annotation update)
01-FEB-1996 (Rel. 33, Last annotation update)
20NA PELLUCIDA SPERM-BINDING PROTEIN 3 PRECURSOR (ZONA PELLUCIDA
         Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                 TRANSMEM
                                                                                                                                                                                                                                                                                                                                                          CHAIN
                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
                                Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                   NON_TER
                                                                                                                                                                                   302
                                                                                                                                                                                                                                                                                                                                                NIAMOC
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                                                                                                                                                                               SWAPVEGSADICECCGNGDCDLIAGSPMNQNHAARSSLRSRRHVTEE
                                                                                                                                                                                                       SWFPVQGPADICQCCNKGDC----GTP-----SHSRRQPHVMSQ 35
                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                             415
                                                                                                                                                                                                                                                                                                                                19
19
19
379
                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                             AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                             301 2
44987 MW;
                                                                                                                                                                                                                                                                                                                   18
415
378
399
415
       Chordata;
Primates;
                                                                                                                                                                                                                                            41.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fontenot G.K.,
                                                                                                                                                                                                                                                                                                                  POTENTIAL.
ZONA PELLUCIDA S
EXTRACELLULAR (1
POTENTIAL.
CYTOPLASMIC (PO
                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                               ZP.
77396CF1BAA3F5CB
                                                                                                                                                                                                                                Pred. No. 4.6
                                                                                                                                                                                                                                            Score 100;
Pred. No. 4
       Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (ZONA PELLUCIDA
                                                                                                                      999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                415
                                                                                                                                                                                                                                                                                                                                                                                                         Receptor; Transmembrane;
                                                                                                                                                                                                                                             .6e-05;
                                                                                                                     Å
                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                                    (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hsu K.T., Yurewicz
         Hominidae;
                                                                                                                                                                                                                                                                                                                                             (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                         SPERM-BINDING
                                                                                                                                                                                                                                  10;
                                                                                                                                                                                                                                                      Length 415;
                                                                                                                                                                                                                                                                                            CRC64;
                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROTEIN
                                                        ANTIGEN)
                    Euteleostomi,
                                                                                                                                                                                  348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cDNAs from families.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G
                                                                                                                                                                                                                                12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               E.C.
                                                        (PVA)
                                                                                                                                                                                                                                Gaps
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RESULT 13
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                                                                                                                                                                                            AC
DT
                                                                                                                                 Query Match
Best Local S
Matches 11
                                                                                                                                                                                                      CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
SYL_CHLMU STANDARD;
Q9PKI4;
20-AUG-2001 (Rel. 40, Created)
                                                                                                                                                                                                                                                                         DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                   REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        vulgaris, a disease of cell adhesion."; Cell 67:869-877(1991).
                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                     TRANSMEM
                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                            Calcium-binding; Repeat.
                                                                                                                                                                                                                                                                                                                                                                                                        Cell adhesion; Signal; Transmembrane; Cytoskeleton; Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00232; CADHERIN_1; PROSITE; PS50268; CADHERIN_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00028; cadherin; SMART; SM00112; CA; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MIM; 169615;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; M76482; AAA60230.1; PIR; A41088; IJHUG3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Amagai M., Klaus-Kovtun V., Stanley J.R.; "Autoantibodies against a novel epithelial cadherin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=92069753; PubMed=1720352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   [1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                        PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR002126; Cadherin.
                                                                                    585
                                                                                                           10
                                                                                                                                  Local Similarity
nes 11; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FUNCTION: COMPONENT OF INTERCELLULAR DESMOSOME INVOLVED IN THE INTERCTION OF PLAQUE PROTEINS FILAMENTS MEDIATING CELL-CELL ADHESION.
SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
TISSUE SPECIFICITY: EPIDERMIS, TONGUE, TONSIL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAINST DSG3.
SIMILARITY: CONTAINS 5 CADHERIN DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISEASE: PEMPHIGUS VULGARIS (PV) IS A POTENTIALLY LETHAL SKIN DISEASE IN WHICH EPIDERMAL BLISTERS OCCUR AS THE RESULT OF THE LOSS OF CELL-CELL ADHESION CAUSED BY THE ACTION OF AUTOANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN: CALCIUM MAY BE BOUND BY THE CADHERIN-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARCINOMAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                           DICQCCNKGDCGT-----PSHSRRQPH 31
                                                                                    EVCQCDNRGICGTSYPTTSPGTRYGRPH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P09803; 1EDH.
                                                                                                                                                                                            999 AA;
                                                                                                                                                                                                                 616
641
50
159
269
386
910
936
110
110
180
                                                                                                                                  Conservative
                                                                                                                                                                                                       107503
                                                                                                                                            24.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.
                                                                                                                                                                                            ¥.
                                                                                                                            Score 59; UB Pred. No. 7.9; 4; Mismatches
                                                                                                                                                                                         DESMOGLEIN REPEAT 1.
DESMOGLEIN REPEAT 2.
N-LINKED (GLCNAC. . .)
                                                                                                                                                                                                                                                                         CADHERIN
CADHERIN
CADHERIN
                                                                                                                                                                                                                                                                                                            CYTOPLASMIC CADHERIN 1.
                                                                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL).
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                            DESMOGLEIN
                                                                                                                                                                                                                                                                                                                                                                                                                     4ω
                           PRT;
                           819
                                                                                                                                           DB;
                           A
                                                                                                                                                                                                                                                                                                                       (POTENTIAL).
                                                                                                                                                       ۳.
                                                                                                                                  7;
                                                                                                                                                       Length 999;
                                                                                                                                                                                            CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JUNCTIONS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ESOPHAGUS
                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'n
                                                                                                                                                                                                       (POTENTIAL)
                                                                                                                                                                                                                                        (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REPEATS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pemphigus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INTERMEDIATE
                                                                                                                                  6
                                                                                                                                  Gaps
                                                                                                                                  1;
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TISSUE-Striatum;

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SO SE ELLA MARCA DE LA RESTRICIO DE LA RESTRIC
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T "Genome sequences of Chlamydia trachomatis MoPn and Chlamydia pneumoniae AR39.";

Funcleic Acids Res. 28:1397-1406(2000).

L Unicia Acids Res. 28:1397-1406(2000).

C --- CATALYTIC ACTIVITY: ATP + L-LEUCINE + TRNA(LEU) = AMP + CRATICIC ACTIVITY: BELONGS TO CLASS-I AMINOACYL-TRNA SYNTHETASE FAMILY.

C --- SUBCELLULAR LOCATION: CYTOPLASMIC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ωy
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RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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Bacteria; Chlamydiales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-AUG-2001 (Rel.
20-AUG-2001 (Rel.
LEUCYL-TRNA SYNTHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-MOPN / NIGG;
MEDLINE-20150255; PubMed-10684935;
Read T.D., Brunham R.C., Shen C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LEUS OR TC0481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=83560;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR001412; tRNA-synt_1.
InterPro; IPR002302; tRNA-synt_1eu.
Pfam; PF00133; tRNA-synt_1; 1.
                                                                                                                                                                                                                                                                                                                                                    5H6_RAT
P31388;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Complete proteome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Aminoacyl-tRNA synthetase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR00985;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Interpro; IPR002300; tRNA-synt_la.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BINDING
                                                                                                                                                                                                                                 01-JUL-1993 (Rel. 26, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
5-HYDROXYTRYPTAMINE 6 RECEPTOR (5-HT-6) (SEROTONIN RECEPTOR)
   SEQUENCE FROM N.A
                                                                                       Mammalia; Eutheria;
                                                                                                                Eukaryota;
                                                                                                                                                  Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   454
                                                     NCBI_TaxID=10116;
                                                                                                                                                                                                        (ST-B17).
                                                                                                                                                                                                                                                                                                                                                                                                                                            14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6 QGP-ADICQCCNKGDCGTPSHSRRQPHVMSQWSRS 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AE002316; AAF39327.1; -. TC0481; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QGPLAKVKEWVNVFDSETQKEGKRETHTMPQWAGS 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l Similarity
13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PS00178; AA_TRNA_LIGASE_I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Rel. 40, Last sequence update)
(Rel. 40, Last annotation update)
SYNTHETASE (EC 6.1.1.4) (LEUCINE--TRNA LIGASE) (LEURS).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
603
819 AA;
                                                                                                                   Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRNASYNTHLEU.
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604
603
A
93014 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23.3%;
                                                                                          Chordata;
Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chlamydiaceae; Chlamydia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein biosynthesis; Ligase; ATP-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 56.5; DI
Pred. No. 13;
5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
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ATP (BY SIMILARITY).
, 024D7E1BD2E900B4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "HIGH" REGION
                                                                                             Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                   436
                                                                                                                                                                                                                                                                                                                                                                                                   A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                       Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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MEDLINE=93196608; PubMed=7680751;
MODINE=93196608; PubMed=7680751;
Monsma F.J. Jr., Shen Y., Ward R.P., Hamblin M.W., Sibley D
MODINING and expression of a novel serotonin receptor with
affinity for tricyclic psychotropic drugs.";
Mol. Pharmacol. 43:320-327(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sibmitted (XXX-1993) to the EMBL/GenBank/DDBJ databases.

-i - FUNCTION: THIS IS ONE OF THE SEVERAL DIFFERENT RECEPTORS FOR THE SEVERAL DIFFERENT RECEPTORS FOR SEVERAL DIFFERENT RECEPTORS FOR THE SEVERATION: A BIOGENIC HORMONE THAT FUNCTION AS A NEUROTRANSMITTER, A HORMONE, AND A MITOGEN. THE ACTIVITY OF AS A NEUROTRANSMITTER, A HORMONE, AND A MITOGEN. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEINS THAT STIMULATES ADENULATE CYCLASE. IT HAS A HIGH AFFINITY FOR TRICYCLIC PSYCHOTROPIC DRUGS.

-i - SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.

-i - TISSUE SPECIFICITY: LOCALIZED EXCLUSIVELY IN THE CENTRAL NERVOUS SYSTEM, PREDOMINANTLY IN THE CORPUS STRIATUM BUT ALSO IN VARIOUS SYSTEM, PREDOMINANTLY IN THE CORPUS STRIATUM BUT ALSO IN VARIOUS LIMBIC AND CORTICAL REGIONS.

-i - SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE=93277562; PubMed=8389146;
Ruat M., Traiffort E., Arrang J.-M.,
Leurs R., Schwartz J.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "A novel rat serotonin (5-HT6) receptor: molecular c. localization and stimulation of cAMP accumulation."; Biochem. Biophys. Res. Commun. 193:268-276(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; L03202;
EMBL; S62043;
EMBL; L19656;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Leurs R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-WISTAR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCRDb; GCR_0723; GCRDb; GCR_0719;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PR00237; GPCRRHODOPSN.
PRINTS; PR01102; 5HT6RECEPTR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF00001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR000276; GPCR_Rhodpsn
                                                                                                                                                                                                                                                                                                                        DOMAIN
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                                                          CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          coupled receptor;
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101
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145
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185
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266
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321
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AAA40611.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7tm_1;
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64
85
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122
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166
184
208
208
295
295
320
320
                                                                                                                                                                                                                5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Transmembrane; Glycoprotein;
                                                                                                                                                                         6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                      1 (POTENTIAL)
CYTOPLASMIC (
                                                          CYTOPLASMIC (POTENTIAL).

**LINKED (GLCNAC. . .) (POTENTIAL).

BY SIMILARITY.

L -> V (IN REF. 1).

PCYHCPPEHRPALPPPPCGPLTAVPDQASACSRCCLCLCRQ
PCYHCPPEHRPALPPPPCGPCTGTFDEDCTTBPHDPCPDTWST
                  TQIQTPLQGAPRACSSQPSFCCLERPPGTPRHPPGPPLWST
SLSQTLWSLRYGRIHSVPP -> HASTVPRSTGQPCLPLHV
                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                 3 (POTENTIAL)
CYTOPLASMIC (
                                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                EXTRACELLULAR (POTENTIAL).
DLSQRCQTRPQLQQVLALPLPPNSDSDSASGGTSGLQLTAQ
                                                                                                                                                                                                                                                                                                          (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                   (POTENTIAL).
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A., AND SEQUENCE OF 31-42; 200-211; 280-291 & 641-656. TISSUE-Fetal liver, and Retinoblastoma; MEDLINE-98052559; PubMed-9389721; Miraglia S., Godfrey W., Yin A.H., Atkins K., Warnke R., Holden J.T., Bray R.A., Waller E.K., Buck D.W.; and Novel five-transmembrane hematopoietic stem cell antigen: "A novel five-transmembrane hematopoietic stem cell antigen: "Solution, Characterization, and molecular cloning.";
                                                                                                                                                                                                                                                                                                                                                   MEDLINE-20056119; PubMed-10587575; Maw M.A., Corbeil D., Koch J., Hellwig A., Wilson-Wheeler J.C., Bridges R.J., Kumaramanickavel G., John S., Nancarrow D., Roeper K., Weigmann A., Huttner W.B., Denton M.J.; "A frameshift mutation in prominin (mouse)-like 1 causes human retinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUB-Fetal liver;
MEDLINE-98052558; PubMed-9389720;
Yin A.H., Miraglia S., Zanjani E.
Leary A.G., Olweus J., Kearney J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
                   This
                                                                                                                                                                                                                                                                                                                                        degeneration.",
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human)
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                                                                                                                                                                                                                                                                                                                                                                                                                                            DISEASE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cells
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"AC133, a n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHARACTERIZATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       382
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                                                                                                                                                                                                                  I. MOI. Genet. 9:27-34(2000).

SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (POTENTIAL).

TISSUE SPECIFICITY: SELECTIVELY EXPRESSED ON CD34 HEMATOPOITETIC

STEM AND PROGENITOR CELLS IN ADULT AND FETAL BLOOD. NOT DETECTED ON

COTHER BLOOD AND ADULT PERIPHERAL BLOOD. NOT DETECTED ON

OTHER BLOOD CELLS. ALSO EXPRESSED IN A NUMBER OF NONLYMPHOID

TISSUES INCLUDING RETINA, PANCREAS, PLACENTA, KIDNEY, LIVER, LUNG,
                                               PROFOUND VISUAL IMPAIRMENT AND EXTINGUISHED ELECTRORETINOGRAMS BY THE THIRD DECADE. A SINCLE WICLEOTIDE DELETION YIELDS A TRUNCATED PROTEIN LACKING HALF OF THE SECOND EXTRACELLULAR LOOP, THE FINAL MEMBRANE-SPANNING DOMAIN AND THE CYTOPLASMIC C-TERMINUS.

SIMILARITY: BELONGS TO THE PROMININ FAMILY.
                                                                                                                                  PTM: GLYCOSYLATED.

DISEASE: DEFECTS IN PROML1 ARE THE CAUSE OF AN AUTOSOMAL RECESSIVE FORM OF RETINAL DEGENERATION CHARACTERIZED BY NIGHT BLIMDNESS AND LOSS OF PERIPHERAL VISION FROM CHILDHOOD WITH PROGRESSION TO
                                                                                                                                                                                                        BRAIN AND HEART
               SWISS-PROT entry is copyright.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PLQGAPRACSSQPSFCCLERPPGTPRHPPGPP----LWSTSLS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 Similarity
15; Conser

    Miraglia S., Zanjani E.D., Almeida-Porada G.,
    Olweus J., Kearney J., Buck D.W.;
    a novel marker for human hematopoietic stem and

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
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 ROT entry is copyright. It is produced through a c
Swiss Institute of Bioinformatics and the EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           46922 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Score 55.5; D; Pred. No. 10; 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LLLPGEATRDPPPPTRATTVVNFFVTDSVEPEIRPHPLSSP VN (IN REF. 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; I Catarrhini; Hominidae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          progenitor
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a collaboration - MBL outstation -
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В
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                                           Query Match
Best Local :
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CARBOHYD
                                                                               CONFLICT
CONFLICT
CONFLICT
SEQUENCE
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CARBOHYD
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CARBOHYD
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TRANSMEM
                                                                                                                                                                                                                                                                                     TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                              the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as as somether is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                             VARIANT
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                                                                                                                                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                             Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                               EMBL; AF027208; AAB92514.1;
132
                11 ICOCCNKGDCGTPSHSRRO
MCRCCNK--CGGEMHQRQK 148
                                  Similarity
9; Conserv
                                                                                 865
                                                                                                                                                                                                                                        455
487
508
793
                                   Conservative
                                                                                                                                                                                                                                                                                                                                                             Glycoprotein; Antigen; Signal; Polymorphism;
                                                                                 ĀΑ;
                                                                               200 D
284 S
288 S
97201 MW;
                                                                                                                                               ω
                                            22.7%;
                 29
                                                                                      A -> S.

/FTId=VAR_010383.

/FTId=VAR_010383.

D -> P OR A (IN R

S -> D (IN REF. 1

S -> R (IN REF. 1
                                                                                                                                                                        CYTOPLASMIC (POTENTIAL)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
                                           Score 55;
Pred. No.
                                                                                                                                                                                                                                                                                     POTENTIAL.
EXTRACELLULAR (POTENTIAL)...
                                                                                                                                                       N-LINKED
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                                                                                                                                                                                                                                                                                                                          EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                  PROMININ-LIKE
                                                                                                                                                                                                                                                                                                                                            POTENTIAL
                                                                                                                                     /FTId=VAR_010382.
                                                                                -> D (IN REF. 1; AA SEQUENCE).
-> R (IN REF. 1; AA SEQUENCE).
D21CBC05ADB2DEDF CRC64;
                                  Mismatches
                                                                                                                                                       (GLCNAC.
                                                    DB 1;
                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                         PROTEIN 1. (POTENTIAL).
                                                                                                           REF.
                                                    Length 865;
                                                                                                           1; AA SEQUENCE).
                                  Indels
                                                                                                                                                                                   (POTENTIAL).
                                                                                                                                                       (POTENTIAL)
                                                                                                                                                                                                              (POTENTIAL).
                                                                                                                                                                          (POTENTIAL).
                                                                                                                                                                                                    (POTENTIAL)
                                                                                                                                                                                                                      (POTENTIAL).
                                  2
                                  Gaps
                                  1;
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Search completed: January 10, 2002, 11:23:44 Job time: 180 sec

the

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Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
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SPTREMBL_17:*

SP_archea:*

sp_archea:*

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sp_human:

sp_human:

sp_mamm;

sp_mhc.

sp_mhc.

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10:
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14:
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                                                                                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-252-828A-2
242
1 SWFPYQGPADICQCCNKGDC.....TPSHSRRQPHYMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     January 10, 2002, 11:20:24; Search time 22.22 Seconds (without alignments) 269.899 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
                                                               sp_mammal:*
sp_mhc:*
sp_organelle:*
sp_phage:*
sp_plant:*
                                                                                                                                            sp_archea:*
sp_bacteria:*
sp_fungi:*
sp_human:*
sp_invertebrate:*
                                 sp_rodent:*
sp_virus:*
    sp_vertebrate:*
sp_unclassified:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

19	18	17	16	15	14	13	12	11	10	9	8	7	6	<sub>U</sub>	4	ω	2	<u>_</u>	Result No.
56	56	56	56	56	57	58.5	59.5	60.5	60.5	87	95	98.5	98.5	100.5	100.5	115	125	217	Score
23.1	23.1	23.1	23.1	23.1	23.6	24.2	24.6	25.0	25.0	36.0	39.3	40.7	40.7	41.5	41.5	47.5	51.7	89.7	Query Match
647	642	641	448	122	1120	559	934	436	99	446	422	446	446	460	454	418	424	210	Query Match Length
4	11	11	10	4	ហ	13	N	13	N			~	13	13	13	11	11	4	₽B
094815	070421	Q08463	Q9FYV3	Q9P1G6	Q20778	Q98SI2	005478	Q9DG37	Q9PE89	073670	077685	Q9PWF8	P79762	Q91728	Q91675	Q9ERI0	P97708	Q12903	ID
094815 homo sapien	O70421 mus musculu	Q08463 rattus norv	Q9fyv3 saccharum o	Q9p1g6 homo sapien	Q20778 caenorhabdi	Q98si2 brachydanio	005478 streptomyce	Q9dg37 pimephales	Q9pe89 xylella fas	073670 coturnix co	077685 trichosurus	Q9pwf8 gallus gall	P79762 gallus gall	Q91728 xenopus lae	Q91675 xenopus lae	Q9eriO microtus br	P97708 rattus norv	Q12903 homo sapien	Description

j L

45	44	43	42	41	40	39	38	37	36	35	34	ω 3	32	31	30	29	28	27	26	25	24	23	22	21	20
53.5	٠	•	٠	53.5	٠	53.5	54	54	54	54	54	54	54	54	54.5	54.5	54.5	54.5	55	55	55.5	55.5	55.5	55.5	56
22.1	22.1	22.1	22.1	22.1	22.1	22.1	22	22.3	22	22	22	22	22	22	22	22	$\sim$	Ν	Ν	Ν	2	2	N	22.9	23.1
2168	738	379	351	338	270	227	609	592	544	537	477	315	214	214	735	559	424	340	591	295	447	435	349	344	648
ഗ	4	10	μ.	4	4	σ	4	13	٢	4	σ	σ	0	N	11	<u>1</u> 3	3	12	11	ν	10	13	11	11	4
Q19330	060327	Q9FYF9	Q9YA98	060521	Q9BYI6	Q9V4G7	Q9HD61	057328	Q48304	Q9HBE2	097600	097601	097602	Q9RD56	Q60473	Q919M5	Q92027	Q9JF36	Q9JI49	Q44588	Q9ZRP9	Q9PUJ6	Q99N34	054788	Q9UP38
Q19330 caenorhabdi	060327 homo sapien	Q9fyf9 arabidopsis	Q9ya98 aeropyrum p			Q9v4g7 drosophila	Q9hd61 homo sapien	057328 gallus gall	Q48304 haloferax s		_	097601 oryctolagus	097602 oryctolagus				Q92027 cyprinus ca		Q9ji49 rattus norv	Q44588 alcaligenes	Q9zrp9 malus domes	Q9puj6 carassius a	Q99n34 rattus norv	054788 mus musculu	Q9up38 homo sapien

### ALIGNMENTS

RESULT P97708 ID P AC P DT 0 DT 0 DT 0	Qy Ma	RP RC RAX RAX RAT RT DR RT DR CDR	RESULT Q12903 ID Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q
LT 2  08  P97708  PSY708; O55084; PRELIMINARY; PRT; 424 AA.  101-NOV-1998 (TrEMBLrel. 08, Created)  01-NOV-1998 (TrEMBLrel. 08, Last sequence update)  01-JUN-2001 (TrEMBLrel. 17, Last annotation update)	Query Match 89.7%; Score 217; DB 4; Length 210; Best Local Similarity 87.8%; Pred. No. 3.9e-22; Matches 36; Conservative 2; Mismatches 3; Indels 0; Gaps 0;  1 SWFPVGFADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41	SEQUENCE FROM N.A.  TISSUE=CVARY;  MEDLINE=95309900; PubMed=7789967;  Kipersztok S., Osawa G.A., Liang L.F., Modi W.S., Dean J.;  Kipersztok S., Osawa G.A., Liang L.F., Modi W.S., Dean J.;  Kipersztok S., Osawa G.A., Liang L.F., Modi W.S., Dean J.;  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "TOM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from human ZP3 and a POM121  "POM-ZP3, a bipartite transcript derived from	Ol2903 PRELIMINARY; PRT; 210 AA. Ol2903; PRELIMINARY; PRT; 210 AA. Ol2903; Ol-NOV-1996 (TrEMBLrel. Ol, Created) Ol-NOV-1996 (TrEMBLrel. I), Last sequence update) POM-ZP3. POM-ZP3. HOMO sapiens (Human). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. NCBI_TaxID=9606;

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RESULT
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Best Local S
Matches 21
                                 Q9ERIO;
01-MAR-2001
01-MAR-2001
01-JUN-2001
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CONFLICT
CONFLICT
SEQUENCE
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CARBOHYD
CARBOHYD
            ZONA
                                                                                                                                                      Q9ERI0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRINTS; PR00023; ZPELLUCIDA.
SMART; SM00241; ZP; 1.
PROSITE; PS00682; ZP_DOMAIN; FALSE_NEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; X10823; CAA71787.1; -... EMBL; D78482; BAA24456.1; -... InterPro; IPR001507; zona_pellucida. Pfam; PF00100; zona_pellucida; 1. PRINTS; PR00023; ZPELLUCIDA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
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Mammalia; Eutheria;
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   +
                                                                                                                                                                                                                                                                                             309
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Akatsuka K., Yoshida-Komiya H., Tulsiani D.P., Orgebin-Crist
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-SPRAGUE-DAWLEY; TISSUE-OVARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=WISTAR; TISSUE MacDuff P.E., Kerr L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RAIN=WISTAR; TISSUE=OVARY;
cDuff P.E., Kerr L.E., Aitken R.J.;
reprod. Fertil. Abstr. Ser. 18:86-86(1996).
AR-2001 (TIEMBLrel. 16, Created)
AR-2001 (TIEMBLrel. 16, Last sequence update)
UN-2001 (TIEMBLREL. 17, Last annotation update)
PELLUCIDA 3 GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY).
SIMILARITY: CONTAINS A ZP DOMAIN,
SIMILARITY: CONTAINS A ZP DOMAIN,
IN ZP2, ZP3, GP2, TGER-3 AND UROM(
                                                                                                                                                                                                                                                                                                         SWFPVOGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS
                                                                                                                                                                                                                                                                           SWLPVEGDADICDCCSNGNCSNSSSSEFETHEPAQWSTLVS 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MATRIX.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             424 AA;
                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              388
409
329
329
146
273
304
307
330
412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Signal; Sulfatation; matrix.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16
424
387
408
424
308
338
334
1146
273
307
330
412
                                                                                                                                                                                                                                                                                                                                                                                                                           51.7%;
51.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             45900 MW;
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N-S (IN REF. 2)

N-S (IN REF. 2)

N-S (IN REF. 2)

K-> M (IN REF. 2)
                                                                                                                                                                                                                                                                                                                                                                                             Score 125; DB Pred. No. 2.8e 5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                   5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POLY-SER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOPLASMIC (POTENTIAL).
                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MAIN, WHICH UROMODULIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sperm; Receptor; Transmembrane;
                                                                                                                                          418
                                                                                                                                                                                                                                                                                                                                                                                                                           DB 11;
.8e-09;
                                                                                                                                          A
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Q91675
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Best Local :
                         Q91728
Q91728;
  01-NOV-1996
01-JAN-1998
                                                                                                                                                                                               CHAIN
SEQUENCE
                                                                                                                                                                                                                     Signal.
                                                                                                                                                                                                                                                  EMBL; U44952; AAB39079.1;
InterPro; IPR001507; zona_pellucida.
Pfam; PF00100; zona_pellucida; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                 Q91675;
01-NOV-1996
01-FEB-1997
01-JUN-2001
                                                                                                                                                                                                                                                                                    Hedrick J.L., Yang J.C.; Submitted (JAN-1996) to the EMBL/GenBank/DDBJ databases.
                                                                                            330
                                                                                                                                                                                                                                           SMART; SM00241; ZP;
                                                                                                                                                                                                                                                                                                                                                   Xenopus laevis (African clawed frog).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AF304487; AAG18455.1; ...
InterPro; IPR001507; zona_pellucida.
Pfam; PF00100; zona_pellucida; 1.
PRINTS; PR00023; ZPELLUCIDA.
SMART; SM00241; ZP; 1.
PROSITE; PS00682; ZP_DOMAIN; UNKNOWN_1.
PROSITE; PS00682; ZP_DOMAIN; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                 Xenopodinae;
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                                                                                                                                                                                                                                                                                                                                                                                                       ZONA PELLUCIDA C
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q91675
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Li H., Piao Y.S., Zhang Z.B., Zhu C., "Cloning and characterization of zona"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vole."
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                                                                                       SWSPLQGPSNICSCCDTGNCVSVPGQSRRLGPYFSGSRWNQ 370
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                                                                                                                                       19;
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l Similarity 44.7%;
l7; Conservative
                                                                                                                                                 Similarity
                                                                                                                                                                                               454 AA;
  (TrEMBLrel.
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(TrembLrel. 02, Last sequence up
(TrembLrel. 17, Last annotation
(TDA C GLYCOPROTEIN PRECURSOR.
                                    PRELIMINARY;
                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
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454 Z
49589 MW;
                                                                                                                                                41.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     to the EMBL/GenBank/DDBJ databases
 01,
Last sequence update;
            Created)
                                                                                                                                     Score 100.5;
Pred. No. 6.7e
9; Mismatches
                                                                                                                                                                                             POTENTIAL.

ZONA PELLUCIDA C GLYCOPROTEIN

A8DB9A5B978E5197 CRC64;
                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 115; DB 11; Pred. No. 6.5e-08; Mismatches 13
                                   460
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pellucida
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on update)
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Eukaryota; Metazoa; Chordata; Amphibia; Batrachia; Anura; M Xenopodinae; Xenopus.

01-JUN-2001 (TrEMBLrel.

17,

Last annotation update)

Xenopus laevis (African clawed frog). Xenopus laevis (African clawed frog). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;

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SOCIAL DESCRIPTION OF THE PROPERTY OF THE PROP
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Best Local Similarity
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Best Local
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Gallus gallus (Chicken)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
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01-MAY-2000
01-JUN-2001
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TISSUE-OVARIES FROM HCG-TREATED FEMALES;

MEDLINE-98013448; PubMed-9352194;

Kubo H., Kawano T., Tsubuki S., Kawashima S., Katagiri C., Suzu "A major glycoprotein of Xenopus egg vitelline envelope, gp41, rog homolog of mammalian ZP3.";

Dev. Growth Differ. 39:405-417(1997).

EMBL; D86568; BAA13117.1; -.

InterPro; IPR001507; Zona_pellucida.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "A 42-kDa glycoprotein from chicken egg-envelope, an avian homolog of the ZPC family glycoproteins in mammalian zona pellucida. Its first identification, cDNA clonning and granulosa cell-specific expression."; Eur. J. Biochem. 260:736-742(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR001179; FKBP_PPIASE.
InterPro; IPR001507; zona_pellucida.
Pfam; PF00120; zona_pellucida; 1.
PRINTS; PR00023; ZPELLUCIDA.
PROSITE; PS00453; FKBP_PPIASE_1; UNKNOWN_1.
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MEDLINE=99203469; PubMed=10103002;

MEDLINE=99203469; PubMed=10103002;

MEDLINE=99203469; PubMed=10103002;

MEDLINE=99203469; PubMed=10103002;
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                                                                                        SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQW 36
                                                                                                                                                             16; Conservative
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13,
17,
                                                                                                                                                             ; Score 98.5; D; Pred. No. 1.2e
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Pred. No. 6.8e-06;
9; Mismatches 10
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qp41, is a
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                                                                                                                                         Query Match
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Matches 15
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("Cloning and characterization of a zona pellucida 3 of "Cloning and characterization of a zona pellucida 3 of marsupial, the brushtail possum Trichosurus vulpecula zygote 0:0-0(1998).

Zygote 0:0-0(1998).

Zygote 0:0-0(1998).

EMBL; AF079524; AAC28736.1; -.

Interpro; IPR001179; FKBP_PPIASE..

Interpro; IPR001507; zona_pellucida.

Interpro; IPR001507; zona_pellucida; 1.

PRINTS; PR00100; zona_pellucida; 1.

PRINTS; PR00023; ZPELLUCIDA.

R PROSITE; PS00453; FKBP_PPIASE_1; UNKNOWN_1.

SEQUENCE 422 AA; 45714 MW; 58BA61A92F82612A CRC6.
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Best Local
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O1-MAY-2000 (TrEMBLrel. 13, Created)
O1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
O1-JUN-2001 (TrEMBLrel. 17, Last annotation update)
20NA PELLICIDA C PROTEIN.
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Galliformes; Phasianidae; Phasiani
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      077685
077685;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Gallus gallus zona pellucida C protein gene.";
Submitted (AUG-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AB031033; BAAB3318:1; -
Interpro; IPR001179; FKBP_PPIAse.
Interpro; IPR001507; Zona_pellucida.
Pfam; PF00100; Zona_pellucida; 1.
PRINTS; PR00023; ZPELLUCIDA.
PROSITE: PS00453; FKBP_PPIASE_1; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9PWF8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Trichosurus vulpecula (Brush-tailed possum).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Metatheria; Diprotodontia; Phalangeridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1998 (TrEMBLrel. 08, 01-NOV-1998 (TrEMBLrel. 08, 01-JUN-2001 (TrEMBLrel. 17, 20NA PELLUCIDA 3 PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=LIVER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9337;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SMART; SM00241; ZP; 1.
SEQUENCE 446 AA; 47670 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kono Y., Matsuda T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9031;
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   314
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   WLPVEGPRDICSCCQTGTCISLSSSRKR 341
                                                                    WFPVQGPADICQCCNKGDCGTPSHSRRQ 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
16; Conserv
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15; Conser
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                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40.78;
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; Pred. No. 1.2e
7; Mismatches
                                                                                                                                             4;
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Pred.
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Last annotation update)
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                                                                                                                                                                                                                                                                                                                             58BA61A92F82612A CRC64;
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                                                                                                                                             Mismatches
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No.
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                                                                                                                                                                               DB 6;
3.6e-05;
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..2e-05;
nes 12;
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                                                                                                                                                 9
                                                                                                                                                                                                                      Length 422;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CRC64;
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Trichosurus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  446;
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RA Alvarenga R., Alves L.M.C., Arruda P., Abreu F.A., Acencio M.,
RA Alvarenga R., Alves L.M.C., Arraya J.E., Baia G.S., Baptista C.S.,
RA Barros M.H., Bonaccorsi E.D., Bordin S., Bove J.M., Briones M.R.S.,
RA Bueno M.R.P., Camargo A.A., Camargo L.E.A., Carraro D.M., Carrer H.,
RA Colauto N.B., Colombo C., Costa F.F., Costa M.C.R., Costa Neto C.M.,
RA Coutinho L.L., Cristofani M., Dias-Neto E., Docena C., Erro J. Dorry H.,
RA Facincani A.P., Ferreira A.J.S., Ferreira V.C.A., Ferro J.A.,
RA Fraga J.S., Franca S.C., Franco M.C., Frohme M., Furlan L.R.,
RA Garrier M., Goldman G.H., Goldman M.H.S., Gomes S.L., Gruber A.,
RA Garrier M., Goldman G.H., Goldman M.H.S., Gomes S.L., Kitajima J.P.,
RA Krieger J.E., Kuramae E.E., Laigret F., Lambais M.R., Leite L.C.C.,
RA Krieger J.E., Kuramae E.E., Laigret F., Lambais M.R., Leite L.C.C.,
RA Machado M.A., Madeira A.M.B.N., Madeira H.M.F., Martino C.L.,
RA Marques M.V., Martins E.A.L., Martins E.M.F., Matsukuma A.Y.,
RA Monn D.H., Nagai M.A., Nascimento A.L.T.O., Netto L.E.S.,
Nhani A. Jr., Nobrega F.G., Nunes L.R., Olivelra M.A.,
de Oliveira M.C., de Oliveira R.C., Palmieri D.A., Paris A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.

KONO Y., TSUDA T., Aoki N., Kitajima K., Matsuda T.;

Submitted (MAR-1998) to the EMBL/GenBank/DDBJ databases.

EMBL; AB012606; BAA25637.1; .

Interpro; IPR001179; FKBP_PPIase.
Interpro; IPR001507; zona_pellucida.

Interpro; IPR001507; zona_pellucida.

Pfam; PF00100; zona_pellucida; 1.

PRINTS; PR00023; ZPELLUCIDA.

PROSITE; PS00453; FKBP_PPIASE_1; UNKNOWN_1.

SMART; SM00241; ZP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-AUG-1998 (TrEMBLrel.
01-AUG-1998 (TrEMBLrel.
01-JUN-2001 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-2000 (TrEMBLrel. 15, 01-OCT-2000 (TrEMBLrel. 15, 01-MAR-2001 (TrEMBLrel. 16, HYPOTHETICAL PROTEIN XF1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Coturnix coturnix japonica (Jap
Eukaryota; Metazoa; Chordata; Carchosauria; Aves; Neognathae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9PE89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    073670;
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                                                                                                                                                                                                                                                                                                   MEDLINE=20365717; PubMed=10910347;
                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                 Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                    Xylella fastidiosa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Coturnix.
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                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=2371;
                                                                                                                                                                                                                                                                                                                                                                                       Xylella
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=93934;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                330
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              446 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
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07,
17,
                                                                                                                                                                                                                                                                                                                                                                                               gamma subdivision; Xanthomonas group;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Japanese quail).
ta; Craniata; Vert
hae; Galliformes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 87; DB
Pred. No. 0.00
6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Created)
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Last annotation updat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            67A98797A58C135B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 13;
0.00047;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vertebrata; Euteleostomi;
nes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               update)
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Q9DG37
                                                                                                                                 RESULT 12
005478
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A Quaggio R.B., Roberto P.G., Rodrigues V., de Rosa A.J.M.,
A de Rosa V.E. Jr., de Sa R.G., Santelli R.V., Sawasaki H.E.,
A da Silva A.C.R., da Silva A.M., da Silva F.R., Silva W.A. Jr.,
A da Silva A.P., Terenzi M.F., Truffi D., Tsai S.M., Tsuhako M.H.,
A de Souza A.P., Van Sluys M.A., Verjovski-Almeida S., Vettore A.L.,
A Zago M.A., Zatz M., Meidanis J., Setubal J.C.;
A Zago M.A., Zatz M., Meidanis J., Setubal J.C.;
A The genome sequence of the plant pathogen Xylella fastidiosa.";
A Rature 406:151-159(2000).
B EMBL, AE003949; AAR83949.1;
B EMBL, AE03949; AAR83949.1;
B SEQUENCE 99 AA; 11303 MW; 2CF720F47433EF81 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                   005478
005478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-2001
01-MAR-2001
01-JUN-2001
                                        01-JUL-1997 (TrEMBLrel. 04, Created)
01-JUL-1997 (TrEMBLrel. 04, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation updat
LIPA TRANSCRIPTIONAL ACTIVATOR.
                                                                                                                                                                                                                                                                                                                                  "Identification of the ZP3 cDNA sequence from Pimephales exposed to diethylstilbestrol."; submitted (CCT-1999) to the EMBL/GenBank/DDBJ databases. EMBL; AF192407; AAC28398.1; InterPro; IPR001507; zona_pellucida. Pfam; PF00100; zona_pellucida; 1. PRINTS; PR00023; ZPELLUCIDA. SMART; SM00241; ZP; 1.

NON_TER 1 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pimephales promelas.

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Cypriniformes; Cyprinidae; Leuciscinae; Pimephales.

NCBI_TaxID=90988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2001 (TrEMBLrel. 16, Last sequence up 01-JUN-2001 (TrEMBLrel. 17, Last annotation 20NA PELLUCIDA GLYCOPROTEIN 3 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9DG37
                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Morris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9DG37;
                                                                                                                                                                                          385 WFAADGNDQVCGCCD-STCGPDGEFAASPYGGIEWEGKAS 423
                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12 CQCCNKGDCGTPSHSRRQPHVMSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36 CRCAKK-HCGLPEHSRTFPNIPEQ
                                                                                                                                                                                                                     2 WFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                l Similarity
11; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C.A.,
                                                                                                                                                                                                                                                                                                                      436 AA;
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                                                                                                                                                                                                                                                 Conservative
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                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Thomas-Jones R.E.,
                                                                                                                                                                                                                                                                                                                      47690 MW;
                                                                                                                                                                                                                                                             25.0%;
27.5%;
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45.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                             Score 60.5; D
Pred. No. 1.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 60.5; DB Pred. No. 0.53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             58
                                                                                                                                                                                                                                                                                                                      8C54DC948DBC41B6 CRC64;
                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cryer J.,
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                                                                                                                   934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Euteleostei; Pimephales.
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                                                                                                                                                                                                                                                                            DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Woodhead S., Kille P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            update)
                                                                                                                                                                                                                                                 24;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ostariophys1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                    promelas
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Streptomyces sp. Bacteria; Firmicutes;

Actinobacteria; Actinobacteridae;

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OFFICE SECOND SE
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                        20778
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                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                   Best
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EMBL; AJ301617; CAC37335.1; -
NON_TER 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; M86351; AAB51446.1; -.
InterPro; IPR000792; HTH_LuxR.
Pfam; PF00196; GerE; 1.
SMART; SM00421; HTH_LUXR; 1.
DNA-binding; Transcription regulation.
DNA-binding; Transcription 721770AAEE7E8FA2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; l
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Cypriniformes; Cyprinidae; Rasborinae; Danio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q98SI2;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation updat
FRIZZLED 7 PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Servin-Gonzalez L.;
Submitted (APR-1997) to
-i- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Cloning, characterization, and export of an extracellular lipase-encoding Gene 123:109-114(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE=21184123;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        098512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=M11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Actinomycetales; Streptomycineae; Streptomycetaceae; Streptomyces.NCBI_TaxID=1931;
  Q20778
                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                      "Expression pattern of the frizzled 7 development.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       El-Messaoudi S., Renucci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=7955;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Brachydanio rerio (Zebrafish) (Zebra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Servin-Gonzalez L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Perez
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                                                                                                                                                                                                                                   Local
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                                                                                                                                                             3 FPVQGPADICQCCNKGDCGTPSHSRRQPHV 32
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                                                                                                                 FPVHGAGEICVGQNTSDAGSPT-SNPTPYV 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VEGPGEACAAHCDAALAGAVPHGLAQPATLATWAR 675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C., Juarez
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                                                                                                                                                                                                                                                                                                                               559
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  PRELIMINARY;
                                                                                                                                                                                                             Conservative
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                                                                                                                                                                                                                                                                                                                               AA;
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                                                                                                                                                                                                                                                                                                                               63719 MW;
                                                                                                                                                                                                                              24.2%;
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TO T
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FHE LUXR/UHPA FAMILY OF TRANSCRIPTIONAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and expression in Streptomyces encoding gene from Streptomyces
                                                                                                                                                                                                           4; Mismatches
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                                                                                                                                                                                                                                 Score 58.5; D
Pred. No. 4.5;
PRT;
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  1120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 934;
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                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ostariophysi;
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SQRRRAC PROCESS OF THE PROCESS OF TH
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (AUG-1994) to the EMBL/GenE EMBL; U12966; AAA20613.1; -. InterPro; IPR000087; Collagen. InterPro; IPR002486; Col_cuticle_N. Pfam; PF01391; Collagen; 2. Pfam; PF01484; Col_cuticle_N; 1. SEQUENCE 1120 AA; 119368 MW; 1776
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01-NOV-1996 (
01-NOV-1996 (
01-JUN-2001 (
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01-OCT-2000
01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                    Q9P1G6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-94150718; PubMed-7906398;
MISON R., Ainscough R., Anderson K., Baynes C., Berks M.,
Wilson R., Ainscough R., Anderson K., Copsey T., Cooper J., Coulson A
Bonfield J., Burton J., Conneil M., Copsey T., Cooper J., Coulson A
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L.,
Gardner A., Green P., Hawkins T., Hillier L., Jier M., Johnston L.,
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan M.,
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownkeen I
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry-Mieg J., Thomas K., Vaudin M., Waterston R.,
Watson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.;
"2.2 M of contiguous nucleotide sequence from chromosome III of C.
                                                                         TISSUE=LIVER;
Zhang C., Yu Y.,
                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bentley D.;
Submitted (NOV-1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       elegans
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Caenorhabditis elegans.
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                                                                                                                                                                                                                                                                                     PRO1787.
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"Functional prediction of the coding sequences of 121 new deduced by analysis of cDNA clones from human fetal liver.
                                                       Liu M., He F.;
                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                           Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Waterston R.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nature 368:32-38(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PSAGPGDKCNCNTENSCPAGPAGPKGTPGH 934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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(TrEMBLrel. 01, Last sequence update)
(TrEMBLrel. 17, Last annotation update)
TRIPLE HELICAL REGION OF COLLAGENS.
                                                                                                                                                                                                                                                                                                          (TrEMBLrel. 15, (TrEMBLrel. 15, (TrEMBLrel. 15,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                         Zhang
                                                                                                                                                                                                        Chordata;
Primates;
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                                                                                                                                                                                                                                                                                                     Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                               Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 57; DB Pred. No. 13;
                                                                                                                                                                                                        Craniata; Vertebrata;
Catarrhini; Hominidae
                                                                            н.,
                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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                                                                               Zhou
                                                                                                                                                                                                                                                                                                                                                                                                                    122
                                                                               G.,
                                                                                                                                                                                                                                                                                                                                                                                                                 A
                                                                                                                                                                                                           Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>ن</u>
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                                                                               Ouyang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1120;
                                                                               s:
                                                                                                                                                                                                                                   Euteleostomi;
                                                                                                                                                                                                           Homo
                                                                               Luo
          genes
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Submitted (DEC-1998) to the EMBL/GenBank/DDBJ databases.

EMBL; AF116668; AAF71088.1; -...
SEQUENCE 122 AA; 13695 MW; B428ED1274CE81CD CRC64;

SEQUENCE 122 AA; 13695 MW; B428ED1274CE81CD CRC64;

SEQUENCE 122 AA; 13695 MW; B428ED1274CE81CD CRC64;

COURTY MATCH
23.1%; Score 56; DB 4; Length 122;
Best Local Similarity 36.6%; Pred. No. 2.6;
Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Mismatches 8; Indels 12; Gaps 2;

Matches 15; Conservative 6; Misma
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Post-processing:
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Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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242
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                                                                                                                                                                                                                        219241 seqs, 76174552 residues
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pir3:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIE

Result	Score	Query Match	Length	₽B	ΙĐ	criptio
1	235	7.	424	_ ;	A36000	sperm-binding glyc
2	217	89.7	210	N	89	3 protěiň -
3	151	2	426	ν	S70396	lucida
4	143	9.	422	ш	A60503	-binding gly
5	136		424	N	S70399	ellucida
0	126	<u>ب</u>	424	μ	A30334	9
7	119	9	421	_	S70433	ellucida
8	109	45.0	421	<b>_</b>	S70402	zona pellucida gly
9	100	1.	415	N	S70401	.ucida
10	98	0	44	N	B44365	
11	60.5	5	99	N	в82720	$\mathbf{H}$
12	59		58	N	S35573	
13			999	۲	IJHUG3	$\mathbf{H}$
14		4.	357	N	S09269	ai
15	S	24.0	66	ν	S78705	protein YBR056w-a
16	56.5	ω.	819	N	G81698	leucyl-tRNA synthe
17	S	ω.	647	N	JE0337	1-1 F
18			436	N	JN0591	serotonin receptor
19	55	2	641	N	A45054	probable intercell
20	55		858	2	T08881	prominin - mouse
21		22.7	865	N	T09050	AC133 antigen - hu
22	54.5	2	424	N	S52847	egg membrane prote
23	4	2.	735	N	148101	м 6 protei
24	54	2	202	ພ	A33176	
25	54	2	477	2	A47236	ğ
26	54	2	494	N	A42170	zinc finger protei
27		2	497	N	JC5076	associated zi
28	53.5	2	351	N	C72508	hypothetical prote
29	ω ·	22.1	379	N	н96696	protein F1N21.16 [

POM-ZP3 protein - human C;Species: Homo sapiens (man) C;Date: 19-Oct-1995 #sequence\_revision 19-Oct-1995 #text\_change 05-Nov-1999

A56844

#### ALIGNMENTS

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A;Cross-references: GDB:128007; OMIM:182889
A;Map position: 7pter-7qter
C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology
C;Keywords: glycoprotein; occyte; receptor; sulfoprotein; transmembrane protein
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-424/Product: sperm-binding glycoprotein ZP3 #status predicted <MAT>
F;45-301/Domain: ZP domain homology <ZPH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;van Duin, M.; Polman, J.E.; Verkoelen, C.C.; Bunschoten, H.; Meyerink, J.H.; Olijve Genomics 14, 1064-1070, 1992
A;Title: Cloning and characterization of the human sperm receptor ligand ZP3: evidenc A;Reference number: A44365; MUID:93122771
A;Accession: A44365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Chamberlin, M.E.; Dean, J.

Proc. Natl. Acad. Sci. U.S.A. 87, 6014-6018, 1990

A;Title: Human homolog of the mouse sperm receptor.

A;Reference number: A36000; MUID:90349545

A;Accession: A36000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species: Homo sapiens (man)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C;Accession: A36000; A44365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sperm-binding glycoprotein ZP3 precursor - human
N;Alternate names: sperm receptor ZP3; zona pellucida glycoprotein ZP3
C;Species: Homo sapiens (man)
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RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Gene: GDB: ZP3A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Note: sequence inconsistent with the nucleotide translation
A; Note: sequence extracted from NCBI backbone (NCBIN:122391, NCBIP:122392)
C; Comment: This sulfated glycoprotein in the zona pellucida of the oocyte is a recept
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 329-370, 'S', 372-424 <VAN>
A; Experimental source: ovary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA; DNA
A; Residues: 1-424 < CHA>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: GB:M60504;
                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 39; Conserv
                                                                                        308
                                                                                                                                                    ш
                                                                                  Conservative
                                                                                                                                                                                                                                      97.1%;
95.1%;
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Verkoelen, C.C.; Bunschoten, H.; Meyerink, J.H.; Olij
                                                                                                                                                                                                                                      Score 235; DB 1; Pred. No. 1.2e-20;
                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                  Length 424;
                                                                                                                                                                                                             0;
                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                             0;
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C;Accession: A56844
R;Ripersztok, S.; Osawa, G.A.; Liang, L.; Modi, W.S.;
Genomics 25, 354-359, 1995
A;Title: POM-ZP3, a bipartite transcript derived from A;Reference number: A56844; MUID:95309900
A;Accession: A56844
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-210 <KIP>
                                                                     A;Cross-references: GB:M63629
A;Note: the authors translated the codon CAA for residue 251 as Glu, and AGG fo C;Comment: This sulfated glycoprotein in the zona pellucida of the oocyte is a C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology C;Keywords: glycoprotein; oocyte F;45-300/Domain: ZP domain homology <ZPH>
                                                                                                                                                                                                                                                                                                                                                sperm-binding glycoprotein ZP3 precursor golden hamster
N;Alternate names: sperm receptor; zona pellucida glycoprotein ZP3
C;Species: Mesocricetus auratus (golden hamster)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10
C;Accession: A60503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Harris, J.D.; Hibler, D.W.; Fontenot, G.K.; HSU, A.I.; ILLETTLE, T.C., T.C., TONA Seq. 4, 361-393, 1994
A;Title: Cloning and characterization of zona pellucida genes and cDNAs from a variety A;Reference number: $70396; MUID:95143578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                zona pellucida glycoprotein C - dog
C;Species: Canis lupus familiaris (dog)
C;Date: 28-Oct_1996 #sequence_revision
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C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology
F;43-299/Domain: ZP domain homology <ZPH>
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A; Cross-references: GB:U10099; NID:g607803;
                                                                                                                                                                                                                                            A;Title: Genomic organization and polypeptide A;Reference number: A60503; MUID:91078540 A;Accession: A60503
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A; Residues: 1-426 <HAR>
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                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-422 <KIN>
                                                                                                                                                                                                                                                                                                          R; Kinloch, R.A.; Ruiz-Seiler,
Dev. Biol. 142, 414-421, 1990
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59.1%;
56.1%;
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Pred. No. 1
Score 143;
Pred. No. :
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1; DB 1
1e-09;
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.7e-19;
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A;Reference number: A30334; MUID:88242926
A;Accession: A30334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Mus musculus (house mouse)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C;Accession: A30334; S04189; A31232; A48823
R;Ringuette, M.J; Chamberlin, M.E.; Baur, A.W.; Sobieski, D.A.; Dean, J. Dev. Biol. 127, 287-295, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: EMBL:U05778; NID:g458272; C;Superfamily: sperm-binding glycoprotein ZP3; F;43-299/Domain: ZP domain homology <ZPH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R; Harris, J.D.; Hibler, D.W.; Fontenot, G.K.; DNA Seq. 4, 361-393, 1994
A;Title: Cloning and characterization of zona A;Reference number: S70396; MUID:95143578
                                                                                                                                                                                                            R;Kinloch, R.A.; Roller, R.J.; Fimiani, C.M.; Wass
Proc. Natl. Acad. Sci. U.S.A. 85, 6409-6413, 1988
A;Title: Primary structure of the mouse sperm reco
A;Reference number: A31232; MUID:88320451
A;Accession: A31232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Felis silvestris catus (dome
C;Date: 28-Oct-1996 #sequence_revision
A;Title: Identification of a region of mouse zona pellucida glycoprotein mZP3 that po A;Reference number: A48823; MUID:93050795 A;Accession: A48823
                                                                                                                                                                                                                                                                                                                                    A; Residues: 1-423 <KIN>
A; Cross-references: EMBL: X14376
                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
A; Residues: 1-423 <K
                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Title: Nucleotide sequence of the gene A; Reference number: S04189; MUID:89240048 A; Accession: S04189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Kinloch, R.A.; Wassarman, P.M.
Nucleic Acids Res. 17, 2861-2863, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Cross-references: GB:M20026;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA; mRNA
A; Residues: 1-424 <RIN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sperm-binding glycoprotein 2P3 precursor -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: mRNA
A; Residues: 1-424 <HAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: S70399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Accession: S70399
                                                                    R;Rosiere, T.K.; Wassarman,
Dev. Biol. 154, 309-317, 199
                                                                                                                                                                                                                                                                                                                                                                                                           A; Status: translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N;Alternate names: sperm receptor; zona pellucida glycoprotein ZP3; ZP3 glycoprotein
                                                                                                                                         A; molecule type: DNA
A; Residues: 1-152, 'E', 154-252, 'E', 254-424
                                                                                                                                                                                        A; Status: not compared with conceptual translation
                                                                                                                 A;Cross-references: EMBL:J03851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WFPVEGPADICNCCNKGSCGLQGRSWRLSHLDRPWHKMAS 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SWSPVEGDAEVCGCCSSGDCGSSSRSRYQAHGVSQWPKSAS 347
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is silvestris catus (domestic cat)
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55.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene encoding zona pellucida glycoprotein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           for ZP3, a sperm binding protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIDN:AAB18629.1; PID:g1663714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIDN:AAA74390.1; PI; ZP domain homology
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                                                                                                                                                                                                                                                                                                                Wassarman, D.A.; Wassarman,
                                                                                                                                                                                                                                                                    receptor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #text_change 20-Aug-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 424;
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                                                                                                                                                                                                                                                                    polypeptide determined by
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C:Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology
C:Reywords: glycoprotein; cocyte; sulfoprotein; transmembrane protein
F:1-22/Domain: signal sequence #status predicted <SIG>
F:23-424/Product: sperm-binding glycoprotein ZP3 #status predicted <MAT>
F:45-302/Domain: ZP domain homology <ZPH>
F:146,304,327,330/Binding site: carbohydrate (Asn) (covalent) #status predicted
F:273/Binding site: carbohydrate (Asn) (covalent) #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 &;Molecule type: mRNA
A;Residues: 1-421 <HAR>
C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology
F;44-300/Domain: ZP domain homology <ZPH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F;Harris, J.D.; Hibler, D.W.; Fontenot, G.K.; Hsu, K.T.; Yurewicz, E.C.; Sacco, ENA Seq. 4, 361-393, 1994
P;Title: Cloning and Characterization of zona pellucida genes and cDNAs from a v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      zona pellucida glycoprotein C - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 10-Sep_1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C;Accession: S70433
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A.Molecule type: protein
A.Residues: 1-152,'E',154-252,'E',254-424 <ROS>
A;Cross-references: EMBL:U05775; NID:g458266; PIDN:AAA74385.1; PID:g458267 C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology F;44-300/Domain: ZP domain homology <ZPH>
                                                                                                                                                                                     R;Harris, J.D.; Hibler, D.W.; Fontenot, G.K.; Hsu, K.T.; Yurewicz, E.C.; Sacco, DNA Seq. 4, 361-393, 1994
A;Title: Cloning and characterization of zona pellucida genes and cDNAs from a vA;Reference number: S70396; MUID:95143578
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                                                                                                                                                             A; Reference number: S70396; A; Accession: S70402
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                                                                                 A; Molecule type: mRNA
A; Residues: 1-421 <HAR>
                                                                                                                                     A; Status: preliminary
                                                                                                                                                                                                                                                                                          zona pellucida glycoprotein C - bovine
z;Species: Bos primigenius taurus (cattle)
z;Bate: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
z;Accession: S70402
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Best Local Similarity
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Best Local
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19; Conser
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53.7%;
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Pred. No. 1.1e-07;
5; Mismatches 14;
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Query Match

45.0%;

Score 109;

DB 1;

Length 421;

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R:Harris, J.D.; Hibler, D.W.; Fontenot, G.K.; Hsu, K.T.; Yurewicz, E.C.; Sacco, DNA Seq. 4, 361-393, 1994
A;Title: Cloning and characterization of zona pellucida genes and cDNAs from a vA;Reference number: S70396; MUID:95143578
A;Accession: S70401
                                                                           hypothetical protein XF1139 [imported] - Xylella fastidiosa (strain 9a5c) C;Species: Xylella fastidiosa (c;Species: Xylella fastidiosa (c;Date: 1B-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 20-Aug-2000 C;Accession: B82720
                                                                                                                                                                                RESULT
B82720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Experimental source: ovary
A;Note: sequence extracted from NCBI backbone (NCBIN:123950, NCBIP:122393)
C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genomics 14, 1064-1070, 1992
A;TitLe: Cloning and characterization of the human sperm receptor ligand ZP3: evidenc A;Reference number: A44365; MUID:93122771
A;Accession: B44365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:U05782; NID:g458280; PIDN:AAA74392.1; PID:g458281
C;Superfamily: sperm-binding glycoprotein ZP3; ZP domain homology
F;41-295/Domain: ZP domain homology <ZPH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Homo sapiens (man)
C;Date: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 12-May-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 28-Oct-1996 #sequence_revision 27-Feb-1997
                         R; anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Seq Nature 406, 151-157, 2000\,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: nucleic acid
A; Residues: 1-44 < VAN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sperm receptor ligand homolog ZP3-372 - human (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: mRNA
A; Residues: 1-415 <HAR>
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                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                              22 TPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 SWFPVQGPADICQCCNKGDC----GTP-----SHSRRQPHVMSQ 35
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The genome sequence of the plant pathogen Xylella fastidiosa
                                                                                                                                                                                                                                                                               TPSHSRRQPHVMSQWSTSAS
                                                                                                                                                                                                                                                                                                                                                                                  18;
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42.68;
                                                                                                                                                                                                                                                                                                                                                                                                         40.5%;
90.0%;
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3; Mismatches 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 100; DB 2; Pred. No. 0.00013;
                                                                                                                                                                                                                                                                                                                                                                                                         Score 98;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                Length 44;
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C; Accession: A41088
                                                                        desmoglein 3 precursor - human
N;Alternate names: pemphigus vulgaris
C;Species: Homo sapiens (man)
C;Date: 30-Jun-1993 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Experimental source: ovary C; Superimental source: ovary C; Superfamily: sperm-binding glycoprotein zP3; ZP domain homology C; Keywords: glycoprotein; oocyte; receptor F;1-30/Domain: ZP domain homology (fragments) <ZPH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Simpson, A.J.G; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; Ibriones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, i as Neto, E.; Docena, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S.

A; Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frohr J.D.; Junqueira, M.L.; Kemper, ELL; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laig; Chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins, A.A.; Mathors: Martins, E.M.F.; Matsukma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y., F.G.; Nunes, L.R.; Oliveira, M.A.; Me Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.; Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasa, A.J. Authors: da Silva, A.C.R.; da Silva, A.M.; Silva Jr., W.A.; da Silva, A.M.; Silva Jr., W.A.; da Silva, A.P.; Sawasa, M.J.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.;
                                                                                                                                                                                                                                                                               Вb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R:Toepfer-Petersen, E.; Mann, K.; Calvete, J.J.
Biol. Chem. Hoppe-Seyler 374, 411-417, 1993
A:Tittle: Identification of porcine oocyte 55 kDa alpha a pellucida proteins in different mammalian species.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   zona pellucida glycoprotein beta chain - pig (fragments)
C:Species: Sus scrofa domestica (domestic pig)
C:Date: 20-May-1994 #sequence_revision 30-Jan-1998 #text_change 07-May-1999
C:Accession: S35573
                                                                                                                                                                                IJHUG3
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A; Residues: 1-99 <SIM>
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A;Note: for a complete list of authors see reference number A59328 below
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Best Local
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                    Local
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                                                                                                                                                                                                       13
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                                                                                                                                                                                                                                                                                                                         2 WFPVQGPADICQC
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, M.; Klaus-Kovtun,
869-877, 1991
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9; Conservative
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                                                                   #sequence_revision 30-Jun-1993
                                                                                                                                                                                                                                                                             58
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45.8%;
                    Stanley, J.R
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                                                                                                                                                                                                                                                                                                                                                                                               Score 59;
Pred. No.
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                                                                   #text_change
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protein YBR056w-a - yeast (Saccharomyces cerevisiae)
C:Species: Saccharomyces cerevisiae
C:Date: 15-Jan-1999 #sequence_revision 15-Jan-1999 #text_change
                                                                                                                                           RESULT
S78705
                           C:Accession: S78705
R;Aljinovic, G.; Pol
                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Thes 13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                         C;Superfamily: immunoglobulin C region; in C;Keywords: immunoglobulin F;142-208/Domain: immunoglobulin homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R; Burnett, R.C.; Hanly, W. (EMBO J. 8, 4041-4047, 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19 alpha chain C region - rabbit (fragment)
C;Species: oryctolagus cuniculus (domestic rabbit)
C;Date: 29-Jan 1993 #sequence_revision 29-Jan-1993 #text_change 16-Jul-1999
C;Accession: S09269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Status: not compared with conceptual translation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Title: The IgA heavy-chain gene family in rabbit: A; Reference number: S09264; MUID: 90076124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              r/weywords: calcium binding; cell adhesion; duplication; gly
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-49/Domain: propeptide #status predicted <PRO>
F;50-999/Product: desmoglein homolog #status predicted <MAT>
F;50-615/Domain: extracellular #status predicted <EXT>
F;50-515/Domain: catherin repeat homology <CRI>
F;50-77/Domain: catherin repeat homology <CRI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A:Cross-references: GDB:134030; OMIM:169615
A;Map position: 18912.1-18912.2
C;Superfamily: cadherin; cadherin repeat homology
C;Keywords: calcium binding; cell adhesion; duplic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F;910-938/Domain:
F;937-966/Domain:
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 DICQCCNKGDCGT-----PSHSRRQPH 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
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           to
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           Protein
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                              Pohl,
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desmoglein repeat <DG2>
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                           F.M.;
.M.; Pohl, T.M.
Sequence Database,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W.C.; Zhai, S.K.; Knight, K.L
                                                                                                                                                                                                                                                                                                                                   24.2%;
43.3%;
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Pred. No.
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1; Mismatches
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    August
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19;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   homology
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                                                                 15-Jan-1999
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A:Beference number: $45906
A:Accession: $72075
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 166 (ALD)
A:Residues: 166 (ALD)
A:Residues: 166 (ALD)
A:Residues: BNA:235935; MFBS:1BR056v-a
A:Coonstruction: 2R

Ouery Match
11; Conservative 0; Mismatches 4; Indels 4; Gaps 1);
BRICHOSOAL 3Imilarity 24.0%; Score 58; DB 2; Length 66;
BRICHOSOAL 3Imilarity 27.0%; Pred: No. 3.1;
BRICHOSOAL 3.1;
BRICHOSOAL 3Imilarity 27.0%; Pred: No. 3.1;
BRICHOSOAL 3.1;
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Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                             Fost-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OM protein - protein search, using sw model
Pending_Patents_AA_New:*

1: /cgn2_6/ptodata/1/paa/PcT_NEW_COMB.pep:*

2: /cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep:*

3: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep:*

4: /cgn2_6/ptodata/1/paa/US08_NEW_COMB.pep:*

5: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep:*

6: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep:*

7: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep:*
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242
1 SWFPVQGPADICQCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     155098 seqs, 33800819 residues
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Gapop 10.0 , Gapext 0.5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SWFPVQGPADICQCCNKGDC.....TPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                            155098
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES	

Result No.	Score	% Query Match	Length [	DΒ	ID	Description
1	ω :	22.1	251	5	-427-1346	σ,
2	53.5	22.1	296	5	-09-708-427-1346	e 13463,
ω	Ü	•	379	ഗ	-09-708-427-1346	e 1346
4	53	21.9	165	Çī	-708-427-801	e 80144,
5	53		186	Ģ	-09-708-427-8014	e 80143,
0	53	•	210	IJ	-427-8014	e 80142,
7	53	•	406	5	-897-516-	e 6739,
8		•	174	5	20-394B-48	Œ
9	2	٠	227	5	US-09-620-394B-4804	e 4804,
10	2	•	275	5	-09-620-394B-	e 4803,
11		•	348	G	20-394B-336	е 3366,
12	2	•	348	IJ		4932,
13	2	21.7	348	Ŋ	08-427-2224	e 22243,
14	2	21.7	348	5	7-2	e 22247,
15	2	21.7	399	ű	08-427-5853	e 58535,
16	.2	21.7	401	U	-09-620-394B-	Œ
17	.2	21.7	401	ហ	-620-394B-493	e 4931,
18	2	•	401	σı	-708-427-	e 22239,
19	2	21.7	401	G	-09-708-427-2224	æ
20	۲,	21.7	401	ر.	7-22	OD.
21	2	21.7	447	u	-09-708-427-58	58534,
22	52.5	21.7	449	G	-09-620-394B-33	3364,
23	2	21.7	449	ហ	-09-620-394B-49	e 4930,
24	2.	21.7	449	G	-708-427-2	e 2223
25	2	21.7	449	5	-09-708-427-22	22241,
26	2	21.7	449	G	08-427-22	2224

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RESULT 4
US-09-708-427-80144
US-09-708-427-80144, Application US/09708427
Sequence 80144, Application US/09708427
GENERAL INFORMATION:
APPLICANT: N. ALEXANDROV et al.
TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FRAGMENTS AND CORRESPONDING POLYPEPTIDES
TITLE OF INVENTION: THEREBY
FILE REFERENCE: 2750-1243P
CURRENT APPLICATION NUMBER: US/09/708,427
CURRENT FILING DATE: 2000-11-09
NUMBER OF SEQ ID NOS: 85364
SOFTWARE: Patentin version 3.1
SEQ ID NO 80144
LENGTH: 165
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OTHER INFORMATION: Xaa is any amino acid
NAME/KEY: misc_feature
LOCATION: 1..296
OTHER INFORMATION: Ceres Seq. ID 1826392
US-09-708-427-13463
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US-09-708-427-13462
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Best Local Similarity
Thehes 10; Conserve
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CURRENT FILING DATE: 2000-11-09
NUMBER OF SEQ ID NOS: 85364
SOFTWARE: Patentin version 3.1
SEQ ID NO 13462
LENGTH: 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: N. ALEXANDROV et al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE: misc_feature
LOCATION: 1..379
OTHER INFORMATION: Xaa is any amino acid
NAME/KEY: misc_feature
LOCATION: 1..379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Ceres Seq. ID 1826391
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ORGANISM: Arabidopsis thaliana
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; Pred. No. 17;
5; Mismatches
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Query Match
Best Local Similarity
Thes 10; Conserve
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Sequence 80142, Application US/09708427

GENERAL INFORMATION:

APPLICANT: N. ALEXANDROV et al.
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; LOCATION: 1..186
; OTHER INFORMATION: Ceres Seq. ID 1959922
US-09-708-427-80143
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; LOCATION: 1..165
; OTHER INFORMATION: Ceres Seq.
US-09-708-427-80144
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                                                                                                                             SEQ ID NO 80142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 80143, Application US/09708427
GENERAL INFORMATION:
APPLICANT: N. ALEXANDROV et al.
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Best Local
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CURRENT FILING DATE: 2000-11-09
NUMBER OF SEC ID NOS: 85364
SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                 TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FRAGMENTS AND CORRESPONDING POLYPEPTID TITLE OF INVENTION: THEREBY FILE REFERENCE: 2750-1243P
                                                                                             TYPE: PRT
OTHER INFORMATION: Xaa is any amino acid
                   LOCATION:
                                   NAME/KEY: misc_feature
                                                        FEATURE:
                                                                      ORGANISM: Arabidopsis thaliana
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OTHER INFORMATION: Xaa is any amino acid
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US-09-620-394B-4805
, Sequence 4805, Application US/09620394B
; GENERAL INFORMATION:
APPLICANT: ALEXANDROV, Nickolai
APPLICANT: BROVER, Vyacheslav
; TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptides
; TITLE OF INVENTION: Thereby
; FILE REFERENCE: 2750-1067P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  몵
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US-09-897-516-6739
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                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/620,394B
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 9131
SEQ ID NO 4805
LENGTH: 174
TYPE: PRT
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SEQ ID NO 6739
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Best Local Similarity
                  FEATURE:

NAME/KEY: misc_feature
LOCATION: 1..174
OTHER INFORMATION: Xaa is a
NAME/KEY: misc_feature
LOCATION: 1..174
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Best Local Similarity 28.9%;
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TITLE OF INVENTION: Xenorhabdus sp. Genome
FILE REFERENCE: 38-21(51847)B
CURRENT APPLICATION NUMBER: US/09/897,516
CURRENT FILING DATE: 2001-06-29
PRIOR APPLICATION NUMBER: US 60/215, 161
PRIOR FILING DATE: 2000-06-30
PRIOR FILING DATE: 2000-06-30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Corbin, David R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc_feature
LOCATION: 1..210
                                                                                                                                          ORGANISM: Arabidopsis thaliana
    OTHER INFORMATION: Ceres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENGTH: 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              216 IQG-VRLCQCCTAILPAQKHQCPRCHSKGHARR--HYSLQWTMAL 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63 VQDAYVLCRVFHKNNIGPPSGNRYAPFMEEEWA 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5 VQGPADICQCCNK------GDCGTPSHSRRQPHVMSQWSRSV 40
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Hinkle, Gregory J.
Huesing, Joseph E.
Krasomil-Osterfeld, Karina C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Malvar, Thomas M. Slater, Steven C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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Seq. ID 1393412
                                                          any amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 53; DB 5; Length 406; Pred. No. 25; 7; Mismatches 13; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ID 1959921
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Pred. No. 15;
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US-09-620-394B-4803
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Best Local S
Matches 10
                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/620,394B
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 9131
SEQ ID NO 4803
LENGTH: 275
TYPE: PRT
ORGANISM: Arabidopsis thaliana
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CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 9131
SEQ ID NO 4804
LENGTH: 227
TYPE: PRT
ORGANISM: Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4804, Application US/09620394B
GENERAL INFORMATION:
APPLICANT: ALEXANDROV, Nickolai
APPLICANT: BROVER, Vyacheslav
TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptid
TITLE OF INVENTION: Thereby
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Best Local Similarity
                                                                                                                                                                                                                                                                      APPLICANT: BROVER, Vyacheslav
TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptid
TITLE OF INVENTION: Thereby
FILE REFERENCE: 2750-1067P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE: 2750-1067F
                                                                 NAME/KEY: misc_feature LOCATION: 1..275
OTHER INFORMATION: Xaa is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE: misc_feature
LOCATION: 1..227
OTHER INFORMATION: Xaa is any amino acid
NAME/KEY: misc_feature
LOCATION: 1..227
                              NAME/KEY: misc_feature
LOCATION: 1..275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: Ceres Seq. ID 1393411
           OTHER INFORMATION: Ceres Seq.
                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101 IC-CCNKMDATTPKYSK 116
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les 10; Conserv
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                                                                     any amino acid
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Pred. No. 1
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Pred. No. 1
                 ID 1393410
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; NAME/KEY: misc_feature
; LOCATION: 1..348
; OTHER INFORMATION: Xaa is any al
; NAME/KEY: misc_feature
; LOCATION: 1..348
; OTHER INFORMATION: Ceres Seq. I
US-09-620-394B-4932
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; LCCATION: 1..348
; OTHER INFORMATION: Ceres Seq. ID 1385984
US-09-620-3948-3366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-620-394B-3366
                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-620-394B-4932; Sequence 4932, Application US/09620394B; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/620,394B
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 9131
SEQ ID NO 3366
LENGTH: 348
TYPE: PRT
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Best Local
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Best Local S
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CURRENT APPLICATION NUMBER: US/09/620,394B
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 9131
SEQ ID NO 4932
LENGTH: 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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Matches
                                                                                                                                                                                                                                                                                                                                                             APPLICANT: BROVER, Vyacheslav TITLE OF INVENTION: Sequence-Determined DNA Fragments and Corresponding Polypeptides TITLE OF INVENTION: Thereby
                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: ALEXANDROV, Nickolai APPLICANT: BROVER, Vyacheslav
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: 2750-1067P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: 1..348
OTHER INFORMATION: Xaa is any amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc_feature
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                                                                                                                                                                                                           ORGANISM: Arabidopsis thaliana FEATURE:
                                                                                                                                                                                                                                            TYPE: PRT
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              Local Similarity
10;
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10; Conservative
Conservative
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                21.7%;
58.8%;
                                                                                                                                                        any amino acid
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Pred. No. 21;
2; Mismatches
2
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Pred. No. 20
                Score 52.5;
Pred. No. 26;
                                                                                                       ID 1393683
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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                                    DB 5;
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                                    Length 348;
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   Indels
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     Gaps
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US-09-708-427-22243
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LOCATION: 1..348
COTHER INFORMATION: Xaa is any amino acid
NAME/KEY: misc_feature
LOCATION: 1..348
OTHER INFORMATION: Ceres Seq. ID 1840642
US-09-708-427-22243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
US-09-708-427-22247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Вb
                                                                                                                                            FEATURE:
NAME/KEY: misc_feature
LOCATION: 1..348
OTHER INFORMATION: xaa is any amino acid
NAME/KEY: misc_feature
LOCATION: 1..348
OTHER INFORMATION: Ceres Seq. ID 1840646
US-09-708-427-22247
                 Qy
                                     Query Match
Best Local Similarity
Thehes 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FRAGMENTS AND CORRESPONDING POLYPEPTID TITLE OF INVENTION: THEREBY
FILE REFERENCE: 2750-1243P
CURRENT APPLICATION NUMBER: US/09/708,427
CURRENT FILING DATE: 2000-11-09
NUMBER OF SEQ ID NOS: 85364
SOFTWARE: PATENTIN VERSION 3.1
SEQ ID NO 22243
LENGTH: 348
                                                                                                                                                                                                                                                                                                                                            APPLICANT: N. ALEXANDROV et al.

APPLICANT: N. ALEXANDROV et al.

TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FRAGMENTS AND CORRESPONDING POLYPEPTID TITLE OF INVENTION: THEREBY
FILE REFERENCE: 2750-1243P
CURRENT APPLICATION NUMBER: US/09/708,427
CURRENT FILING DATE: 2000-11-09
NUMBER OF SEQ ID NOS: 85364
SOFTWARE: Patentin version 3.1

SEQ ID NO 22247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 22243, Application US/09708427
GENERAL INFORMATION:
APPLICANT: N. ALEXANDROV et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 22247, Application US/09708427 GENERAL INFORMATION:
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Best Local Similarity
Matches 10; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Arabidopsis thaliana
                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                  LENGTH: 348
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11 ICQCCNKGDCGTPSHSR 27
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                                                          Conservative
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                                                                           21.7%;
                                                            2;
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Pred. No. 26;
                                                                         Score 52.5;
Pred. No. 26;
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48 IC-CCNKMDATTPKYSK 63

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RESULT 15
US-09-708-427-58535
, Sequence 58535, Application US/09708427
, Sequence 58535, Application US/09708427
, GENERAL INFORMATION:
APPLICANT: N. ALEXANDROV et al.
TITLE OF INVENTION: SEQUENCE-DETERMINED DNA FRAGMENTS AND CORRESPONDING POLYPEPTIDES TITLE OF INVENTION: THEREBY
FILE REFERENCE: 2750-1243P
CURRENT APPLICATION NUMBER: US/09/708,427
CURRENT FILING DATE: 2000-11-09
NUMBER OF SEQ ID NOS: 85364
SOFTWARE: PATENTIAL VERSION 3.1
SEQ ID NO 58535
LENGTH: 399
TYPE: PRT
ORGANISM: Zea mays subsp. mays
FEATURE:
NAME/KEY: misc_feature
LOCATION: 1..399
OTHER INFORMATION: Xaa is any amino acid
NAME/KEY: misc_feature
LOCATION: 1..399
OTHER INFORMATION: Ceres Seq. ID 1942127
US·09-708-427-58535
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Search completed: January 10, 2002, 11:21:19
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Best Local Similarity 58.8%;
Matches 10; Conservative
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; Pred. No. 28;
2; Mismatches
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US-08-480-444B-12
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Best Local Similarity
Matches 24; Conserv
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                                                                Sequence 12, Application US/08480673B GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Hsu, Kuang T.

APPLICANT: Podolski, Joseph S.

TITLE OF INVENTION: Materials and Methods for Immunocontraception NUMBER OF SEQUENCES: 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,444B
                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 07/973,341 FILING DATE: 09-NOV-1992 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/149,223
FILING DATE: 09-NOV-1993
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM
                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 426 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
TITLE OF INVENTION:
                                                                                                                                                                                     307 WYPVEGSADICRCCNKGSCGLPGRSRRLSHLERGWRKSVS 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: FILING DATE: 07-JUN
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STATE: Illinois
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 31745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Clough, David W
                                                                                                                                                                                                        60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                             amino acid
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312/474-0448
                                                                                                                                                                                                                                                             62.4%; ilarity 60.0%; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-JUN-1995
Materials and Methods for Immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12:
                                                                                                                                                                                                                                                               5,
                                                                                                                                                                                                                                                           Score 151; DB 8; Length 426; Pred. No. 3.2e-09; 5; Mismatches 11; Indels
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Search completed: January 10, 2002, 11:22:59 Job time: 190 sec
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Best Local s
                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,341
FILING DATE: 09-NOV-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 31'TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                  TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                   TELEFAX: 312,
TELEFAX: 25-3856
                                                                          CITY: Chicago
STATE: Illinois
                                                                                                                                                                                                                                                                                                                                 TELEPHONE: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/149,223 FILING DATE: 09-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER:
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                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                 LENGTH:
                                                                                                                                         Similarity
24; Conserv
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   amino acid
   GY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
PatentIn Release #1.0, Version #1.25
                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JMBER: US/08/480,673B
07-JUN-1995
                                                                                                                                                       62.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                          36,107
                                                                                                                                                                                                                                                                                                                   12:
                                                                                                                                           5
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                                                                                                                                                       Score 151; DB 8;
Pred. No. 3.2e-09;
                                                                                                                                           Mismatches
                                                                                                                                                                      Length 426;
                                                                                                                                           Indels
                                                                                                                                            0;
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20 South Clark Street

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; TOPOLOGY: linear ; MOLECULE TYPE: protein US-07-973-341-12
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US-08-259-580-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 12, Application US/08259580 GENERAL INFORMATION:
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TELEPAX: 312/944-9740
TELEX: 25-3856
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 12:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/973,341
FILING DATE: 19921109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: BOTUN, Michael F.
REGISTRATION NUMBER: 25,497
REFERENCE/DOCKET NUMBER: 31096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/346-5750
                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/259,580
                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: DNA SEQUENCES ENCODING MAMMALIAN ZONA TITLE OF INVENTION: PELLUCIDA PROTEINS NUMBER OF SEQUENCES: 39
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
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CITY: Chicago
STATE: Illinoi
ATTORNEY/AGENT INFORMATION:
NAME: Borun, Michael F.
REGISTRATION NUMBER: 25,
                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/012,990
FILING DATE: 20 JAN 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   y Match 62.4%; Score 151; DB 3; Length 426; Local Similarity 60.0%; Pred. No. 3.2e-09; hes 24; Conservative 5; Mismatches 11; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 426 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                      STREET: 20 South
CITY: Chicago
STATE: Illinois
                                                                                                                     FILING DATE:
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                   COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                20 South Clark Street
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TELEFAX: 312/984-9740
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 12
SEQUENCE CHARACTERISTICS:
LENGTH: 426 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                               ; ropology: linear; MOLECULE TYPE: protein US-08-332-503-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 12, Application US/08332503 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 62.4
Best Local Similarity 60.4
Matches 24; Conservative
Query Match
Best Local Similarity
Matches 24; Conserv
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Harris Ph.D., Jerrey J.
APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: DNA SEQUENCES ENCODING MAMMALIAN ZONA
TITLE OF INVENTION: PELLUCIDA PROTEINS
TITLE OF INVENTION: 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: 312/346-5750
                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: BOTUN, Michael F.
REGISTRATION NUMBER: 25,
                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/973,341
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION: TELEPHONE: 312/346-5750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            307 WYPVEGSADICRCCNKGSCGLPGRSRRLSHLERGWRKSVS 346
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CITY: Chicago
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                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/332,503
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                                                                                                                             4: 426 amino acids amino acid
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                                                                                                                                                                                                                                                                                   62.4%;
60.0%;
                   62.4%;
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Pred. No. 3.2e-09;
5; Mismatches 11
                                                                                                                                                                                                                                                                             31096
                       Score 151; DB 7;
Pred. No. 3.2e-09;
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                                       Length 426;
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Conservative

Mismatches

Indels

0;

Gaps

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COUNTRY:

Chicago

6300 Sears Tower,

233 South Wacker Drive

Illinois

United States of

America

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US-09-252-828A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JS-08-484-158A-49
                                                                                           LENGTH: 40
TYPE: PRT
ORGANISM: Homo sapiens
JS-J9-252-828A-1
                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/09252828A
GENERAL INFORMATION:
APPLICANT: DONG, KE-WEN
APPLICANT: OIHBINGER, SERGIO
APPLICANT: GIBBONS, WILLIAM
APPLICANT: GIBBONS, WILLIAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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                                                                                                                                                              SOFTWARE:
   Best Local Similarity
Matches 39; Conserv
                                   Query Match
                                                                                                                                                                                                FILE REFERENCE: 024754/0114
CURRENT APPLICATION NUMBER: US/09/252,828A
CURRENT FILING DATE: 1999-02-19
NUMBER OF SEQ ID NOS: 5
                                                                                                                                                                                                                                                                 APPLICANT: GIBBONS, WILLIAM
FITLE OF INVENTION: RECOMBINANT, BIOLOGICALLY ACTIVE HUMAN ZONA PELLUCIDA
FITLE OF INVENTION: PROTEIN 3 (hZP3) TO TEST MALE FERTILITY
FITLE DEFENDENCE: ORACEA (1014)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/149,223
FILING DATE: 09-NOV-93
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/484,158A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 07/973,341
FILING DATE: 09-NOV-92
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 07 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Clough, David W. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 90...
les 37; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX:
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   Conservative
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                    90.7%;
95.1%;
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   1;
Score 219.5; DB 16
Pred. No. 3.5e-18;
1; Mismatches 0;
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Pred. No. 2.8e-18;
3; Mismatches 1;
                                     DB 16;
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                                     Length 40;
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PCT-US93-10851-12
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GENERAL INFORMATION:
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Best Local Similarity
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 07/9;
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,1
                                 TITLE OF INVENTION: DNA SEQUENCES ENCODING MAMMALIAN TITLE OF INVENTION: PELLUCIDA PROTEINS NUMBER OF SEQUENCES: 39 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
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PRIOR APPLICATION DATA:
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                                                                                                     APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                   307 WYPVEGSADICRCCNKGSCGLPGRSRRLSHLERGWRKSVS 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 09-NO
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                                                                                                                                                                                                                                                                                      2 WFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
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00 Sears Tower, 233 South Wacker Drive
Marshall, O'Toole, Gerstein, Murray & Bicknell
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                                                                                                                                                                                                                                                                                                                                                     62.4%;
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Pred. No. 3.
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3.2e-09;
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TOPOLOGY: linear MOLECULE TYPE: protein 2CT-US93-10851-49
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Best Local S
                                                            Matches
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,444B
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S. TITLE OF INVENTION: Materials and M
                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 31,
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 07/973,341 FILING DATE: 09-NOV-1992 ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Materials and Methods for Immunocontraception NUMBER OF SEQUENCES: 59
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PRIOR APPLICATION DATA:
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                                                                                                                                                        MOLECULE TYPE: protein
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TELEFAX: 25-3856
APPLICATION NUMBER: US 08/149, ETILING DATE: 09-NOV-1993
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 424
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Chicago
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                                                                                                                                                                                                                                                       TELEPHONE: 312/474-0448
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                                                                           Local Similarity
                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                      LENGTH:
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                                                               Conservative
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Pred. No. 2.8e-18;
                                                               3; Mismatches
                                                                              Score 226; DB 8; Pred. No. 2.8e-18;
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RESULT 7
US-08-480-673B-49
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Best Local Similarity
Matches 37; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION UMBER: 07/973
AFILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: Clouds Dayle Mayer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Harris Ph.D., Jeffrey D.
APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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APPLICATION NUMBER: US 08/149,223
FILING DATE: 09-NOV-1993
APPLICATION NUMBER: 08/012,990
APPLICATION NUMBER: 08/012,990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: protein
                    TITLE OF INVENTION: Pharmaceurer TITLE OF INVENTION: Immunocontraception
                                                                               APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Poloco
                                                                                                                                                                                                                                           107
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Clough, David REGISTRATION NUMBER:
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Marshall, O'Toole, Gerstein, Murray & Borun
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07-JUN-1995
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90.2%;
                                                                  Pharmaceutical Compositions for
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Pred. No. 2.8e-18;
3; Mismatches 1
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; TYPE: PRT; ORGANISM: Homo sapiens
US-09-252-828A-2
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SEQ ID NO 2
LENGTH: 41
                                                                                                          MOLECULE TYPE: (S-0)8-030-177-2
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Best Local Similarity
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GENERAL INFORMATION:
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                                  Matches
                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: 024754/0114
CURRENT APPLICATION NUMBER: US/09/252,828A
CURRENT FILING DATE: 1999-02-19
NUMBER OF SEQ ID NOS: 5
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                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                               FILING DATE: 27-AUG-1990
ATTORNEY/AGENT INFORMATION:
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                                               Local Similarity
                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                      REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
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1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
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                                                                                                                                                                                                                      Blackstone, William M. RATION NUMBER: 29,772
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VENTION: RECOMBINANT, BIOLOGICALLY ACTIVE HUMAN ZONA PELLUCIDA
VENTION: PROTEIN 3 (hZP3) TO TEST MALE FERTILITY
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1330-A Piccard
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Pred. No. 2e-18;
1; Mismatches
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Best Local Similarity 92./
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn version 3.0 SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2, Application US/09720282 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: EGG-SURFACE PROTEINS AND METHODS OF THEIR USE FOR MODULATING TITLE OF INVENTION: FERTILITY FILE REFERENCE: 9426-004-999 CURRENT APPLICATION NUMBER: US/09/720,282 CURRENT FILING DATE: 2001-01-18 CURRENT FILING DATE: 2001-01-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT FILING DATE: 2001-01-18
PRIOR APPLICATION NUMBER: PCT/US99/13858
PRIOR FILING DATE: 1999-06-18
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              INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
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MEDIUM TYPE: Florom:
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                                                                                                                                                                        FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/97
                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
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NUMBER OF SEQUENCES:
                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
                                                                                                                                            FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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                          TELEX:
                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM:
                                           TELEFAX:
                                                                                                REFERENCE/DOCKET NUMBER:
                                                                                                              NAME: Clough, David W. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                APPLICATION NUMBER: PCT/US93/10851 FILING DATE: 09-NOV-1993
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CHARACTERISTICS:
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SYSTEM: PC-DOS/MS-DOS
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Tower, 233
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Pred. No. 2e-18;
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perfect score:
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                     Result
No.
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Query
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Copyright (c) 1993 - 2000 Comp
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## ALIGNMENTS

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RESULT 1
US-09-252-828-1
US-09-252-828-1
US-09-252-828-1
Sequence 1, Application US/09252828
Sequence 1, Application US/09252828
Sequence 1, Application US/09252828
Sequence 1, Application US/09252828
Applicant: Ochonic Recombinant, Biologically active Human Zona Pellucid Applicant: GIBBONS, William E.
Applicant: GIBBONS, William E.
Applicant: GIBBONS, William E.
TITLE OF INVENTION: PROTEIN 3 (hZp3) TO TEST MALE FERTILITY
FILL REFERENCE: 024754/0114
CURRENT APPLICATION NUMBER: US/09/252,828
CURRENT FILING DATE: 1999-02-19
EARLIER APPLICATION NUMBER: US 60/075,079
EARLIER APPLICATION NUMBER: US 60/075,079
EARLIER FILING DATE: 1998-02-19
INVMEER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
LENGTH: 41
TYPE: PRT
ORGANISM: Homo sapiens
US-09-252-828-1

Query Match
Best Local Similarity 100.0%; Score 242; DB 16; Length 41:
Best Local Similarity 100.0%; Pred. No. 8.2e-21;
Matches 41; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Matches 41; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Sequence 2, Appli Sequence 49, Appl Sequence 49, Appl Sequence 49, Appl Sequence 49, Appl Sequence 1, Appli

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                         esult
                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         seq length: 0
seq length: 2000000000
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1: /SIDS8/gcgdata/geneseq/geneseqp/AA1980.DAT:*

2: /SIDS8/gcgdata/geneseq/geneseqp/AA1982.DAT:*

3: /SIDS8/gcgdata/geneseq/geneseqp/AA1983.DAT:*

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-252-828A-2
242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              522463 seqs, 74073290 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version Copyright (c) 1993 - 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                   /SIDS8/gcgdata/geneseq/geneseqp/AA1990_DAT:*
/SIDS8/gcgdata/geneseq/geneseqp/AA1991_DAT:*
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/SIDS8/gcgdata/geneseq/geneseqp/AA1985.DAT:*
/SIDS8/gcgdata/geneseq/geneseqp/AA1986.DAT:*
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          223
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372
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      AAW81820
AAY82218
AAY52692
AAY52183
AAY52987
AAR222339
                                                                                                                            AAY66552
AAY42483
                                                                                                                                                                                           AAY52988
                                                                                                                                                                                                                AAY30214
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                                                                                                                                                                                                                                                                                                                   SUMMARIES
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Compugen Ltd
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Amino acids 308 to Human zona pelluci Human zona pelluci Cynomolgus Monkey Cynomolgus monkey Cynomolgus zona pelluc Cynomolgus monkey zona pelluc Cynomolgus monkey zona pelluc Cynomolgus monkey Human ZP3. Homo s
                                                                                                                                                                                                                                                     Description
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Bovine oocyte zona	Y5268	21	421	5	109	45
	AAY82213	21	421	45.0	109	44
ZPC p	W8181	20	421	5	109	43
zona	Y4247	20	421	5	109	42
Bovine zona pelluc	5	15	421	5	109	41
cine zona	N.	21	421	9.	119	40
zona	5	21	421	9	119	39
oocyt	5	21	421	9	119	38
zona	AAY82204	21	421	9	119	37
ZPC I	AAW81806	20	421	9	119	36
	AAY42469	20	421	9	119	35
zona	AAR55196	15	421	9	119	34
ona	AAR96950	15	420	9.	119	S S
0	AAR96951	15	258	9	119	32
. Sus	AAR41004	14	258	9.	119	31
ģ	AAR07058	11	424	2.	126	30
line zona	AAY52979	21	424	6.	136	29
eline zona	AAY52175	21	424	6.	136	28
oocyt	AAY52684	21	424	6	136	27
zona	AAY82210	21	424	σ.	136	26
eline ZPC p	AAW81812	20	424	σ.	136	25
eline zona	AAY42475	20	424	რ	136	24
zona	AAR55202	15	424	σ.	136	23
zona	AAR47198	15	424	σ.	137	22
ne zona	016	15	261	9	137	21
ZP-3. Cani	806	15	426	7.	140	20
ne zona	297	21	426	ν	151	19
zona pe	17	21	426	ν.	151	18
4	8	21	426		151	17
zona pell	220	21	426	2	151	16
ZPC pro	80	20	2		151	15
zona	247	20	$\sim$	۲.	151	14
nine zona pe	51	15	426	62.4	151	13
Marmoset ZP3. Cal	349	15	$\sim$	9.	192	12

## ALIGNMENTS

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RESULT
AAY30214
Human; zona pellucida protein 3; hZP3; glycoprotein; human spermatozoa; acrosome reaction; fertility; sperm motility; fertilization.
                                                                                                                          W09942581-A1.
                                                                                                                                          Homo sapiens.
                                                                                                                                                                            Amino acids 308 to 348 of human zona pellucida protein 3 (hZP3).
                                                                                                                                                                                         01-NOV-1999 (first entry)
                                                                                                                                                                                                         AAY30214;
                                                                                                                                                                                                                      AAY30214 standard; peptide; 41
                                                                                                              26-AUG-1999.
                                                                                                                                                                                                                      Ą
                                                                                                                                  par. co.
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Claim 7; Fig 1;

35pp; English.

fertility

New recombinant human zona pellucida protein products for diagnostic and therapeutic use i

use related

used to developed to human

WPI; 1999-527476/44.

Dong K, Gibbons WE,

Oehninger

(EVIR-) EASTERN VIRGINIA MEDICAL SCHOOL.

19-FEB-1998; 19-FEB-1999;

98US-0075079. 99WO-US03273.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence represents amino acids 308 to 348 of human zona pellucida protein 3 (hzP3). The protein is a glycoprotein, and can strongly bind human spermatozoa and induce an acrosome reaction in the spermatozoa. The specification describes methods for producing recombinant hzP3. The protein can provide high levels of biologically active hzP3 of consistent quality for use in clinical and research chemistry, e.g. diagnostic and therapeutic use related to human chemistry. The protein retains the ability to bind spermatozoa and induce fertility. The protein retains the ability to bind spermatozoa and induce the acrosome reaction. The hZP3 can be used to treat sperm to allow the sperm to respond more efficiently to motility and acrosome reaction regulators within the female reproductive tract and increase the rate of successful fertilization.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of successful fertilization.
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The present invention describes recombinant zona pellucida (ZP) proteins, specifically ZPC proteins. Also described are fusion proteins of ZPC with any of keyhole limpet haemocyanin, muramyl dipeptide, histidine tag, beta-galactosidase or palmitic acid, capable of stimulating mammalian antibodies that recognise mammalian ZPC. Recombinant ZPC proteins are used to immunise animals to induce transient infertility or permanent female sterility, in humans or other mammals. AAZ33243 %-AAZ33254, AAZ33274 to AAZ33274 and AAZ33285 encode mammalian ZP proteins given in AAY52971 to AAX52988 from the present invention. AAZ33255 to AAZ33269 and AAZ33275 to AAZ33284 represent oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zona pellucida; ZPA;
immunocontraceptive;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY52988 standard; Protein; 424 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-NOV-1993;
09-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US5976545-A-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human zona pellucida ZPC protein sequence
                                                                                                                                                                                                                                                                                      New recombinant mammalian zona pellucida C proteins, for induction
                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAZ33285
                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-037080/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-NOV-1999
                                                                                                                                                                                                                                Disclosure; Column 153-156; 87pp; English.
                                                                                                                                                                                                                                                                                                                                                                                               Podolski JS,
                                                                                                                                                                                                                                                                                                                                                                                                                                     (ZONA-) ZONAGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 swfpvqgpadicqccnkgdcgtpshsrrqphvmsqwsrsvs 41
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41;
                                                                                                                                                                                                                                                                         sterility
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                                                                                                                                                                                                                                                                                                                                                                                                 Hsu KT,
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92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95US-0484158.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 242; DB 20; 100.0%; Pred. No. 1.1e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZPB; ZPC; infertility; sterility; vaccine;
contraception; immunisation.
                                                                                                                                                                                                                                                                                                                                                                                                   Harris
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Qγ

1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41

Matches

Conservative

1;

Mismatches

Indels

0;

Gaps

0;

Query Match
Best Local Similarity

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RESULT
AAY67287
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                         during fertilisation. Zp3 binds to receptors on the sperm. The Zp3 binds to receptors on the sperm. The Zp3 binds to receptors on the sperm. The Zp3 brotein is used in the invention, which relates to an antigenic molecule, which consists of an isolated egg surface protein (e.g. Zp3) covalently linked to a glycosylated phosphatidylinositol molety and having sperm binding activity. Antiserum comprising an antibody to an egg surface binding rotein, can be prepared by recovering serum with the ability to bind protein, can be prepared by recovering serum with the ability to bind antigen from an animal following immunisation with an immunogenic and an antibody against an egg surface protein conclude the antiserum, modulating fertility. The antibodies can be used in methods for modulating fertility. The antibodies can be used in vaccination against fertilisation, sterilisation, diagnostic immunoassays, passive immunotherapy and generation of antidiotypic antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY67287 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     zona pellucida protein; ZP3; sperm receptor; fertilisation; antiserum; sperm receptor; antigenic molecule; sperm binding factor; vaccine; sterilisation; fertility modulation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human zona pellucida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY67287;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9965520-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                308
                                                                                                                                                                                                                                                                                         This is the amino acid sequence of the human zona pellucida protein
                                                                                                                                                                                                                                                                                                                        Claim 6; Fig 12B; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                     Antigenic molecule used in methods for modulating fertility
                                                                                                                                                                                                                                                                                                                                                                                                                                Herr JC, Coonrod SA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          (UYVI-) UNIV VIRGINIA PATENT FOUND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-DEC-1999.
                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
nes 39; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000-106016/09
                                                                                                                                                                                                                                                                                                                                                                                    AAZ57790
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                                                                      372 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0089950.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US13858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein
          94.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 235; DB 21;
Pred. No. 7.6e-21;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ZP3) amino acid sequence
          Score 229;
Pred. No. 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A
DB 21;
3.6e-20;
nes 2;
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                             Length 372;
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308 swfpvegpadicqccnkgdcgtpshsrrqphvmsqwstsas 348

RESULT

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RESULT
AAT42483
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EDS
                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                             Cynomolgus monkey cDNA libraries were constructed in lambda gt10 using mRNA isolated from a set of ovaries collected from monkeys aged 1.5 and 2 years and a second set from monkeys aged 3, 4 and 14 years of age. The libraries were screened with probes encoding porcine 2PA, 2PB and 2PC proteins. Positive clones were analysed further by Southern hybridisation using the porcine probes. Clones encoding cynomolgus monkey 2PA, 2PB and 2PC proteins were dentified (see AA079682). AA079682 is the insert from the largest partial 2PC clone which contains just over 50% of the C-terminal portion of the full-length sequence and contains an ORF of 672bp; AAR66552 is the amino acid sequence deduced from the ORF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cynomolgus Monkey;
                                                                                 AAY42483 standard; Protein; 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-MAY-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO9411019-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Macaca cynomolgus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cynomolgus Monkey zona pellucida ZPC protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-FEB-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR66552 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Use of zona pellucida reproducible transien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1994-183156/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Harris JD, Hsu KT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAR66552;
                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 12; Page 132-133; 154pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAQ79682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      female mammals
                                                                                                                                                    107
                                                                                                                                                                                                      Local Similarity es 37; Conserv
                                                                                                                                                              1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                           ر
ح
                                                                                                                                                 swfpvegpadicqccskgdcgtpshsrrqphvvsqwsrsas 147
                                                                                                                                                                                                                                                                        223 AA;
                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pellucida proteins and transient infertility
                               (first entry)
     key zona pellucida ZPC protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93WO-US10851.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               zona pellucida; ZPC; immunocontraception
                                                                                                                                                                                                                 93.4%;
90.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Podolski JS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        223
                                                                                                                                                                                                      ω
                                                                                                                                                                                                                 Score 226; DB 15;
Pred. No. 5.1e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A
                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antibodies -
or permanent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 permanent sterility in
                                                                                                                                                                                                      <u>ب</u>
                                                                                                                                                                                                                               Length
                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                223;
                                                                                                                                                                                                    0;
                                                                                                                                                                                                    Gaps
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В
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                                                                                                                                                                                                                                                        AAW81820
                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein. The invention relates to the isolation of novel nucleotide sequences encoding zona pellucida proteins from mammalian, especially porcine, lapine, canine, feline, bovine, human or cynomolgus monkey sources. The zona pellucida proteins (ZPA, ZPB, and ZPC) are used in the induction of translent or permanent infertility. At present the method is used in veterinary applications to induce translent or permanent infertility in porcine, lapine, canine, feline, bovine,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contraceptive; porcine; pig; zona pellucida; mammal; lapine; canine; dog; rabbit; feline; cat; bovine; cow; human; cynomolgus monkey; ZPA; ZPB; ZPC; infertility; veterinary.
17-NOV-1998
                                                                    Key
Protein
                                                                                                                                                                    M. cynomolgus ZPC protein.
                                                                                                                                                                                            29-JAN-1999
                                                                                                                                                                                                                   AAW81820;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-633318/54.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US5981228-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Macaca fascicularis.
                     US5837497-A.
                                                                                                         Macaca cynomolgus
                                                                                                                                            ZPC; zona pellucida;
                                                                                                                                                                                                                                           AAW81820 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                         and cynomolgus monkeys.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence represents the cynomolgus monkey zona pellucida ZPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       infertility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mammalian zona pellucida proteins used to induce transient or permanent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; AAZ22740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-NOV-1999
                                                                                                                                 vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Podolski JS,
                                                                                                                                                                                                                                                                                                     107 swfpvegpadicqccskgdcgtpshsrrqphvvsqwsrsas 147
                                                                                                                                                                                                                                                                                                                                                     Local Similarity nes 37; Conserv
                                                                                                                                                                                                                                                                                                                  1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                   6
                                                                                                                                 monkey.
                                                                                                                                                                                                                                                                                                                                                                                                                   223 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Column 143-146; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hsu KT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93US-0149223.
92US-0973341.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95US-0484596.
                                              /note=
                                                           /label= ZPC
                                                                                 ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                 93.4%;
                                                                                                                                            infertility; sterility; immunocontraceptive;
                                             "Partial segunence,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Harris JD;
                                                                                                                                                                                                                                            223
                                                                                                                                                                                                                                                                                                                                                       ω
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                                                                                                                                                                                                                                                                                                                                                                 Score 226; DB 20;
Pred. No. 5.1e-20;
                                                                                                                                                                                                                                           A
                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                             DB 20;
                                             no
                                             start codon given"
                                                                                                                                                                                                                                                                                                                                                                             Length 223;
                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This sequence represents a Macaca cynomolyus ZPC protein isolated from zona pellucida. This protein can be used in a method for specifically inducing transient infertility or permanent sterility in a host animal by selective vaccination with specific zona pellucida proteins or immunocontraceptively active fragments.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Isolated zona pellucida DNA from different mammals - used to disproducts which can be used for vaccination to induce transient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ZONA-) ZONAGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 12; Column 145-148; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             infertility or permanent sterility in female mammals
Inducing reproducible transient or permanent infertility in a mammal comprises administration of homologous and/or heterologous mammalian species zona pellucida proteins .
                                                                                                                                                                                                                                                 Zona pellucida; ZPA; ZPB; ZPC; infertility; permanent sterility; vaccine; immunocontraceptive; contraceptive; immunostimulatory.
                                                                                                                                                                                                                                                                                                         12-JUN-2000
                                                                                                                                                                                                                                                                                                                                                    AAY82218 standard; Protein; 223 AA
                                                                                                                          09-NOV-1992;
29-JAN-1993;
                                                                                                                                                             09-NOV-1993;
                                                                                                                                                                                                                                                                                   Monkey zona
                                                                                                                                                                                                                                                                                                                                                                                                             107
                                                        WPI; 2000-269144/23
                                                                               Podolski JS,
                                                                                                                                                                                 22-FEB-2000
                                                                                                   (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                         7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV64820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                              AAZ95677.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 223 AA;
                                                                                                                                                                                                                                                                                    pellucida ZPC SEQ ID NO:49
                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93US-0149223.
92US-0973341.
93US-0012990.
95US-0484993.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95US-0484993
                                                                               HSu KT,
                                                                                                                            92US-0973341.
93US-0012990.
                                                                                                                                                            93US-0149223.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 226; DB 20;
Pred. No. 5.1e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        used to develop
                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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The present invention describes a method for inducing reproducible cc transient infertility in a female mammal, including humans, by selective cadministration of homologous and/or heterologous mammalian species can pellucida (ZP) proteins or immunocontraceptively active fragments. CC Also described are: (1) a method for inducing transient infertility in a command by administering directly an antibody directed to a ZPB or an CC immunologically active fragment selected from felline, bovine, cc cynomolgous monkey or human ZPB polypeptides; (2) an isolated, purified crecombinant feline, bovine, cynomolgous monkey or human ZPB polypeptide or immunologically active fragment; and (3) a fusion protein comprising ca ZPB polypeptide which is conjugated with a compound selected from CC a ZPB polypeptide which is conjugated with a compound selected from CC weight limpet haemocyanin, muramyl dipeptide, histidine-tag, beta-gal, CC cuseful for providing transient or permanent infertility or sterility in humans and animals. The present sequence represents monkey ZPC, which is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
AAY52692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                         09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 12; Column 147-148; 85pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                               Zona pellucida; ZPA; ZPB; ZPC; purified; mammalian; glycoprotein; target; immunocontraception; vaccine; antibody; transient; infert controllable; predictable; permanent; sterility; side effect.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cynomolgus monkey oocyte zona pellucida protein ZPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY52692 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Isolated inducing
                                                                                                                                                                                                                                                                                                        02-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                  Macaca cynomolgus.
This sequence represents a mammalian zona pellucida protein, ZPC The zona pellucida is a complex matrix surrounding the mammalian oocyte, formed of glycoproteins secreted by ovarian cells. The
                                                                                                                                             WPI; 2000-061880/05.
                                                                                                                                                                                                                                                                                                                                      14-DEC-1999.
                                                                                                                                                                               Podolski JS,
                                                                                                                                                                                                        (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 Similarity
37; Conserv
                                                                                             {\tt DNA} encoding mammalian zona pellucida transient sterility -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                               Columns 145-146; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                         93US-0149223.
92US-0973341.
93US-0012990.
                                                                                                                                                                             Hsu KT,
                                                                                                                                                                                                                                                                                                        95US-0458731.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Protein; 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93.4%;
90.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 226; DB 21;
Pred. No. 5.1e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ĄĄ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                    proteins useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           infertility;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                       09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polynucleotides encoding zona pellucida proteins from other mammalian species. Administration of zona pellucida proteins to a host animal species. Administration of zona pellucida proteins to a host animal results in a specific immunocontraceptive effect. Administration of purified ZPA and/or ZPB induces transient infertility in females. Fertility can be maintained in an on or off condition in a controllable/predictable fashion. Administration of ZPC induces permanent sterility. Use of a purified zona pellucida protein rather than a complex mixture of zona pellucida proteins reduces the potential for unwanted side-
                                                                                                             Sequences AAY52181-Y52183 are monkey zona pellucida proteins ZPA, ZPB, and ZPC. The invention relates to isolated and purified zona pellucida proteins from mammals, specifically canine, feline and bovine ZPA or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY52183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAY52183 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      effects which may be harmful.
                                                                                                                                                                                  Example 12; Column 145-146; 84pp; English.
                                                                                                                                                                                                                      Isolated and purified mammalian zona pellucida proteins useful methods of immunocontraception - \,
                                                                                                                                                                                                                                                                                                                                  Podolski JS,
                                                                                                                                                                                                                                                                                                                                                                    (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US5989550-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Macaca cynomolgus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zona pellucida protein; ZPA; ZPB; ZPC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Monkey zona pellucida protein C (ZPC) amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      encoding these proteins can be used for recombinant protein production, and as probes in hybridisation methods for the isolation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fusion protein; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          are useful as targets for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           invention relates to zona pellucida proteins ZPA, ZPB and ZPC, which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immunocontraceptive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        107
                                                                       roteins from mammals, specifically canine, feline and bovine ZPA or heir biologically active fragments also porcine and cynomolgus monkey. The zona pellucida is a complex matrix surrounding the mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ocal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    swfpvegpadicqccskgdcgtpshsrrqphvvsqwsrsas 147
                                                                                                                                                                                                                                                                             2000-022762/02.
DB; AAZ37824.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             l Similarity 37; Conser
formed of glycoproteins secreted by ovarian cells. The sly mentioned ZPA proteins can be used to produce a fusion stimulate production of antibodies in a mammal that recutive of the mammal. The ZPA polypeptides are useful a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        223 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                       93US-0149223.
92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95US-0480150
                                                                                                                                                                                                                                                                                                                                  Χī,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93.4%;
90.2%;
                                                                                                                                                                                                                                                                                                                                  Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZPA; ZPB; ZPC; oocyte; ovarian cell; anti
contraceptive; fertilization; fertility;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immunocontraceptive vaccines. Polynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ω,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 226; DB 21;
Pred. No. 5.1e-20;
3; Mismatches 1
                                                                                                                                                                                                                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 223;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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                      proteins, specifically ZPC proteins. Also described are fusion proteins of ZPC with any of keyhole limpet haemocyanin, muramyl dipeptide, histidine tag, beta-galactosidase or palmitic acid, capable of stimulating mammalian antibodies that recognise mammalian ZPC. Recombinant ZPC proteins are used to immunise animals to induce transient infertility or permanent female sterility, in humans or other mammalian AAX33243 to AAX33254, AAX33270 to AAX33274 and AAX33285 encode mammalian ZP proteins given in AAX52971 to AAX33274 and AAX33285 encode mammalian ZP proteins given in AAX52971 to AAX33284 represent invention.
                                                                                                                                                                                                                                                                                                                                                                              09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          has an important role in maintaining the occyte and in occyte-sperm interactions and so is a target for a contraceptive agent which interferes with the fertilization process. Providing a specific polypeptide reduces the need for a complex mixture of many ZP proteins which may create unwanted and harmful side effects. The duration of transient fertility is controllable and can be maintained in a controllable and/or predictable fashion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cynomolgus monkey zona pellucida ZPC protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY52987 standard; Protein;
                                                                                                                                                                        The present invention describes recombinant zona pellucida (ZP)
                                                                                                                                                                                                   Claim 14; Column 145-146; 87pp; English.
                                                                                                                                                                                                                                New recombinant mammalian zona pellucida C proteins, female sterility
                                                                                                                                                                                                                                                                                                                      Podolski JS,
                                                                                                                                                                                                                                                                                                                                                 (ZONA-) ZONAGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US5976545-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mammalia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immunocontraceptive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zona pellucida; ZPA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vaccines
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS 41
                                                                                                                                                                                                                                                                          2000-037080/03.
DB; AAZ33274.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               swfpvegpadicqccskgdcgtpshsrrqphvvsqwsrsas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for selectively effecting transient infertility in mammals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                223 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                      Hsu
                                                                                                                                                                                                                                                                                                                                                                            93US-0149223.
92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                       95US-0484158
                                                                                                                                                                                                                                                                                                                      X.T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZPB; ZPC; infercontraception;
                                                                                                                                                                                                                                                                                                                    Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           223
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     infertility; sterility; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          226;
No. 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 21;
5.1e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 223;
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                                                                                                                                                                                                                                               for induction
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                                                                                                                                                                                                                                               of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZΡ
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Sequence

223 AA;

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AAR53498
                                                                                                                                        AAR22239
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                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                    Query Match
Best Local S
Matches 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR22239 standard;
                                                                                                                                                         The protein sequence was deduced from the nucleotide sequence of zona pellucida ZP3 obtd. by screening a human genomic EMBL3 library with a labelled ZP3 probe. The human gene was found to comprise 8 exons spread over 20 kb genomic DNA. cDNA clones were isolated and expressed in CHO cells. Elucidation of the ZP3 sequence will allow prodn. of large amts. of the protein by recombinant techniques. The protein and derived polypeptides may be used to prep. an immunocontraception by either active or passive immunisation. The polypeptide and antibodies (and anti-idiotype antibodies) directed to it may be useful in diagnostic kits.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human ZP3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9203548-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zona pellucida; antigenic; epitopes; fertillisation; gametes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-JUL-1992
                                                                                                                                                                                                                                                                                                   Human zona pellucida protein ZP3 and fragments - useful as contraceptive vaccines or diagnostic medical kits
                                                                                                                                                                                                                                                                                                                                                                                                         27-AUG-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-MAR-1992.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        107
                                                                                                                                                                                                                                                                               Claim 3;
                                                                                                                                                                                                                                                                                                                                  N-PSDB; AAQ22997.
                                                                                                                                                                                                                                                                                                                                            WPI; 1992-096892/12.
                                                                                                                                                                                                                                                                                                                                                                Van Duin M;
                                                                                                                                                                                                                                                                                                                                                                                  (ALKU ) AKZO NV
                                                                                                                                                                                                                                                                                                                                                                                                                             13-AUG-1991;
                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                            309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l Similarity
37; Conserv
                                                                                                                                                                                                                                                                               Fig 2; 32pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                        372 AA;
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                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                           90EP-0202287.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93.4%;
                                                                                                 93.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "antigenic epitope"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      372
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Pred. No. 5.1e-20;
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                                                                                                 Score 225; DB 13; Pred. No. 1.1e-19;
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                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 223;
                                                                                                            Length 372;
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                                                                                         Indels
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                                                                                         Gaps
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PN FTT XXX
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                                                                                                                                                                                                      RESULT
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Best Local S
Matches 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zona pellucida; gl; diagnosis; tumour;
                                                                                                                                                                                                                                                                                                                                                                    The marmoset ZP3 gene was isolated by PCR from total mamoset RNA using PCR primers corresp. to regions of the human ZP3 gene. ZP3 (the sperm receptor) is useful as an immunocontraceptive and as a diagnostic reagent e.g. to detect sperm function, to monitor the effects of vaccination, for imaging follicles, to detect ZP3-related autoimmune disorders or ZP3-expressing tumours or to screen for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Callithrix jucchus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Marmoset ZP3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR53498;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR53498 standard; Protein; 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9410304-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New polypeptide(s) with marmoset ZP3 activity - are useful as immuno-contraceptive vaccines and in diagnosis, also test system for contraceptive development
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1994-167461/20.
N-PSDB; AAQ63673.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Aitken RJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (AKZU ) AKZO NOBEL NV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-OCT-1993;
                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                             autoantibodies against ZP3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Page 15; 27pp; English.
                                                                                                                                                                              AAR55199 standard; Protein; 426 AA
                                                                 Canis familiaris.
                                                                                                             Canine zona pellucida ZPC protein.
                                                                                                                                                          AAR55199;
                               Protein
                                                                                                                                    31-JAN-1995
                                                                                                                                                                                                                                      308 swfpvegpadicqccskgdcgtpsharrqphvvslgsgs 346
                                                                                                                                                                                                      13
                                                                                                                                                                                                                                                 1 SWFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRS 39
                                                                                        canine;
                                                                                                                                                                                                                                                                                al Similarity
32; Conserv
                                                                                                                                                                                                                                                                                                                                        424 AA;
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                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                    (first entry)
                                                                                        zona pellucida; ZPC; immunocontraception.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     92EP-0310026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93WO-EP03014.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               glycoprotein 3; sperm receptor; immunocontraceptive;
ur; autoimmune disease.
                      1..426
/label= canine_ZPC
                                          Location/Qualifiers
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':
                                                                                                                                                                                                                                                                                              79.3%;
82.1%;
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                                                                                                                                                                                                                                                                                             Score 192; DB 15;
Pred. No. 1.3e-15;
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                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                          Length 424;
                                                                                                                                                                                                                                                                                     Indels
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WO9411019-A

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26-MAY-1994.

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RESULT 14
AAY42472
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Best Local
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                                                                          09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                used as probes in Southern hybridisations. Sequences coding for canine ZPA and ZPC proteins were obtained (AAQ65608 and AAQ65609, respectively). AAR55199 is the deduced amino acid sequence for ZPC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                     Contraceptive; porcine; pig; zona pellucida; mammal; lapine; canine; dog; rabbit; feline; cat; bovine; cow; human; cynomolgus monkey; ZPA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Use of zona pellucida proteins and reproducible transient infertility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1994-183156/22.
WPI; 1999-633318/54.
N-PSDB; AAZ22714.
                                                                                                                       07-JUN-1995;
                                                                                                                                                                  US5981228-A
                                                                                                                                                                                      Canis familiaris.
                                                                                                                                                                                                                                                    Canine zona pellucida ZPC protein.
                                                                                                                                                                                                                                                                           15-FEB-2000
                                                                                                                                                                                                                                                                                                 AAY42472;
                                                                                                                                                                                                                                                                                                                       AAY42472 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A commercially available 16 week old canine ovarian cDNA expression library in lambda gtl1 was screened using antibodies raised against heat solubilised canine zona pellucida. The largest candidate clone was used to rescreen the library and to isolate clones which were
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 40; Page 92-93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Harris JD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ZONA-) ZONAGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-NOV-1993;
                                                                                                                                            09-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             female mámmals
                                 Podolski JS,
                                                    (ZONA-)
                                                                                                                                                                                                                                                                                                                                                                             307
                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                     2 WFPVQGPADICQCCNKGDCGTPSHSRRQPHVMSQWSRSVS
                                                                                                                                                                                                                                                                                                                                                                           wypvegsadicrccnkgscglpgrsrrlshlergwrksvs 346
                                                                                                                                                                                                          ZPC; infertility; veterinary.
                                                                                                                                                                                                                                                                                                                                                                                                                         24;
                                                      ZONAGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAQ65609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            426
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                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                           (first entry)
                                 HSu KT,
                                                                         93US-0149223.
92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
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93US-0012990.
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                                                                                                                      95US-0484596.
                                                                                                                                                                                                                                                                                                                                                                                                                               62.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Podolski JS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      154pp; English.
                                 Harris
                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                      Score 151; DB Pred. No. 1.3e 5; Mismatches
                                 JD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antibodies - for inducing or permanent sterility in
                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                  41
                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 426;
                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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This sequence represents a canine ZPC protein isolated from zona pellucida. This protein can be used in a method for specifically inducing transient infertility or permanent sterility in a host animal by selective vaccination with specific zona pellucida protein protein

proteins

or immunocontraceptively active fragments.

Sequence

426 AA;

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RESULT 1
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Best Local Similarity
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09-NOV-1992;
29-JAN-1993;
07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This sequence represents the canine zona pellucida ZPC protein. The invention relates to the isolation of novel nucleotide sequences encored pallucida proteins from mammalian, especially poracine, lapine, canine, feline, bovine, human or cynomolgus monkey sources. The zona pellucida proteins (ZPA, ZPB, and ZPC) are used in the induction of transient or permanent infertility. At present the method is used in veterinary applications to induce translent or permanent infertility in porcine, lapine, canine, feline, bovine, and cynomolgus monkeys.
                                                                                                                                                                                                                                                                                                                                               WPI; 199
N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Canine ZPC protein
                                                                                                                                                                                                                                            Isolated zona pellucida DNA from different mammals - products which can be used for vaccination to induce infertility or permanent sterility in female mammals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US5837497-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW81809 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mammalian zona pellucida proteins used to induce transient
                                                                                                                                                                                                     Claim
                                                                                                                                                                                                                                                                                                                                                                                                                              Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ZONA-) ZONAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZPC; zona pellucida; infertility; sterility; immunocontraceptive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-JAN-1999
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DB; AAV64791.
                                                                                                                                                                                                5; Column 78-80; 84pp;
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Pred. No. 1.3e
5; Mismatches
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